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PUBLICATIONS OF THE NATIONAL BUREAU OF
ECONOMIC RESEARCH, INCORPORATED

No. 5

Second Edition

EMPLOYMENT HOURS AND EARNINGS
IN PROSPERITY AND DEPRESSION

UNITED STATES

1920-1922

ALL reports of the National Bureau of Economic Research are critically examined in manuscript both by its scientific staff and by its Board of Directors. No report is published that has not been approved by a majority of the Board. A Director who dissents from any statement in a report approved by the majority may have his critical comments published in the report.

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EMPLOYMENT HOURS *and* EARNINGS *in* PROSPERITY AND DEPRESSION

UNITED STATES

1920-1922

By

WILLFORD ISBELL KING

OF THE STAFF OF THE NATIONAL BUREAU OF
ECONOMIC RESEARCH, INC.

RESULTS OF AN INQUIRY CONDUCTED *by* THE
NATIONAL BUREAU OF ECONOMIC RESEARCH
with the help of THE BUREAU OF MARKETS AND
CROP ESTIMATES *and* THE BUREAU OF THE
CENSUS *for* THE PRESIDENT'S CONFERENCE
ON UNEMPLOYMENT

Second Edition

NEW YORK

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RESEARCH, INC.

1923

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PREFACE

When President Harding's Conference on Unemployment convened in the latter part of 1921, it soon came to the conclusion that its duty was not only to take measures to relieve the immediate emergency, but also to make plans which would tend to reduce the amount of unemployment in the future. The fact quickly developed that there was a surprising dearth of information concerning actual employment conditions in the United States. This lack of fundamental data upon which to base conclusions convinced the members of the Conference that the first step needed in any permanent program was to obtain fuller evidence concerning employment conditions in the United States and especially concerning the relation of these conditions to the economic cycle. To consider methods of preventing or at least of mitigating cyclical unemployment, Secretary Herbert Hoover, the Chairman of the Conference, appointed a Committee on Unemployment and Business Cycles constituted as follows:

OWEN D. YOUNG, Chairman of the Board of Directors of the General Electric Co., Chairman.

JOSEPH H. DEFREES, Sometime President of the Chamber of Commerce of the United States.

MARY VAN KLEECK, Director of Industrial Studies of the Russell Sage Foundation.

MATTHEW WOLL, Vice-President of the American Federation of Labor.

CLARENCE M. WOOLEY, President of the American Radiator Company.

EDWARD EYRE HUNT, Secretary.

To meet the expense of making the necessary investigations, the Carnegie Corporation was asked for financial aid and the request was granted. The generosity of that organization, and that of several others which contributed on a smaller scale, has then made possible a careful study of the facts.

The task of supervising the investigation was allotted by the Committee on Unemployment and Business Cycles to the National Bureau of Economic Research.

The reason for choosing this Bureau was not only that it was an organization especially designed for fact finding, but also that it was so constituted as to safeguard its findings against bias, since all of the reports compiled by its Staff must, before publication, be reviewed by a Board of Directors,

twenty-one in number, representing widely divergent interests and points of view. This report has been approved in the usual manner.

The Director of Research of the Bureau, Dr. Wesley C. Mitchell, assigned to the present writer the task of ascertaining as many facts as possible concerning the changes in employment conditions in the United States that occurred between the peak of the boom in 1920 and the trough of the depression in the next year. It was decided that the requisite information could be obtained only in one of two ways, namely, through an extensive field study carried on by aid of enumerators or through the distribution of questionnaires. The first method seemed more likely to meet with success, but the expense of an investigation on a scale broad enough to be worth while was found to be prohibitive; hence it was decided to have recourse to questionnaires.

The latter plan was adopted with misgiving, for while many wished for its success, few were optimistic enough to predict anything but failure. The results of the preliminary attempts to secure data were so unsatisfactory that the prevailing spirit of pessimism was made even deeper; but repeated experiments eventually pointed the way to accomplish the desired purpose. It was found that when the matter was properly presented to them, American farmers and other business men were ready to give the time and energy necessary to furnish the data required, and, since detailed estimates were called for, this was, in many cases, no small matter. In collecting the reports, highly valuable assistance was rendered by the Secretaries of a number of Chambers of Commerce in various cities who responded to the solicitation of the Chamber of Commerce of the United States, by Professors of Economics and their students, and by Mr. Nat Murray and Mr. Vergil Sanders, of the Bureau of Markets and Crop Estimates, who mailed questionnaires to their Crop Reporters. Over 11,000 farmers and other business proprietors showed their public spirit by returning usable records of conditions prevailing in their enterprises. The reports furnished covered concerns ranging from the little shop or farm, which the proprietor managed alone, to great corporations employing hundreds of thousands of workers. Every section of the United States and every important industrial field responded to the inquiry. The Bureau of the Census, which assisted in the investigation throughout, also undertook the important task of tabulating the results.

The author takes pleasure in acknowledging the hearty and effective co-operation rendered by Messrs. W. M. Steuart, W. L. Austin, S. S. Slick and others in the Bureau of the Census, by Mr. Edward Eyre Hunt, Secretary of the Business Cycle Committee, and by fellow members of the Staff of the National Bureau of Economic Research, and the painstaking and diligent work of Miss Kate E. Huntley, Miss Helen McGlade, Mr. Robert V.

Schultz and a dozen or more temporary assistants who performed the necessarily tiresome routine work connected with an investigation of this sort.

The investigation, the results of which are recorded in the accompanying tables, has made the following addition to our knowledge concerning conditions of employment in the United States:

- (1) It shows the relative responsiveness of different industries to the forces giving rise to the business cycle.
- (2) It indicates the comparative ability of large and small scale businesses to resist such forces.
- (3) It analyzes the shifts of population from one industrial field to another.
- (4) It traces the variations in hours and earnings of employees that accompany the change from boom to depression.
- (5) It presents the first approximately complete record of the seasonal changes occurring in the conditions of agricultural labor.
- (6) It gives the first picture of the distribution of farm employees according to hours and earnings.
- (7) It measures the importance of part-time employment in the chief industrial fields.
- (8) It enables us for the first time to estimate the approximate total reduction in employment brought about by the depression of 1921.

The facts concerning these eight points and others are presented in the pages that follow.

WILLFORD I. KING.

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EMPLOYMENT HOURS AND EARNINGS IN PROSPERITY AND DEPRESSION

UNITED STATES, 1920-1922

CHAPTER I

INTRODUCTION

Students of American labor problems have long been hampered by the lack of any comprehensive data on employment, hours, and earnings. There has been no lack of isolated studies pertaining to these fields but these studies have covered different phases of different industries at different periods. The reports on hours worked have not always corresponded to the records of pay. Rarely indeed has one been able to obtain a fair comparison of conditions in a series of industries. Our knowledge concerning the total effect of a depression upon employment has been painfully incomplete. Because of these reasons, everyone who has tried to piece together the available fragments and thus make a composite picture of the situation of the employed classes has felt the crying need of a study which would treat all industries in a uniform manner.

The investigation authorized by the Committee on Unemployment and Business Cycles appointed by President Harding's Conference on Unemployment made it possible to obtain this much-needed information. When the National Bureau of Economic Research was entrusted with the task of studying the relationship of unemployment to the business cycle, the Staff of the Bureau laid plans at once to draw as complete a picture as possible of employment conditions throughout the country.

The data presented in the succeeding chapters were all secured from questionnaires, the three types of which are here shown.

The first schedule was designed to secure directly from employees information showing the time they lost through various causes, their hours of work, pay, family income, and income per ammain.¹ The needed informa-

¹ An ammain is defined as a gross demand for articles of consumption having a total money value equal to that demanded by the average male in the given class at the age when his total requirements for expense of maintenance reach a maximum. For a discussion of this unit and its uses in measuring the relative needs of different classes of the population, see *The U. S. Public Health Reports*, Nov. 26, 1920, or *The Journal of Political Economy*, July, 1921, p. 571.

THE UNITED STATES DEPARTMENT OF AGRICULTURE in Cooperation with THE
RECORD OF EMPLOY

NAME OF FARMER..... ADDRESS: Post

It is not expected that you will be able to fill out the following tables with exactness upon your best recollection will be entirely satisfactory. Do not fail to fill this schedule

Please enter in the following spaces a record of the principal occupations followed or over except those who have during the entire time been engaged in household

OCCUPATIONS FOLLOWED SINCE JANUARY 1, 1920, BY THE FARMER

Name of Farmer and of Members of His Family	Age	Sex	NAME OF PRINCIPAL OCCUPATION			
			1920			
			1st Quarter	2d Quarter	3d Quarter	4th Quarter
Farmer.....						
.....						
.....						
.....						
.....						
.....						
.....						
.....						
.....						

RECORD OF FARMER'S HIRED EMPLOYEES AT DIFFERENT
Note: Kindly indicate those periods in which no employees were

Sex		
MALE	Hired by Month	Average Number of Persons of This Class in Your Employ*..... Average Pay Per Employee Per Month, Including Value of Board, Housing, etc., Furnished Average Number of Hours Worked Per Week Per Employee..... Do not write on this line..... Do not write on this line.....
	Hired by Day	Average Number of Persons of This Class in Your Employ*..... Average Pay Per Employee Per Day, Including Value of Board, Housing, etc., Furnished Average Number of Days Worked Per Week Per Employee..... Average Number of Hours Worked Per Week Per Employee..... Do not write on this line..... Do not write on this line.....
	Hired by Week	Average Number of Persons of This Class in Your Employ*..... Average Pay Per Employee Per Week, Including Value of Board, Housing, etc., Furnished Average Number of Hours Worked Per Week Per Employee..... Do not write on this line..... Do not write on this line.....
	Hired by Day	Average Number of Persons of This Class in Your Employ*..... Average Pay Per Employee Per Day, Including Value of Board, Housing, etc., Furnished Average Number of Days Worked Per Week Per Employee..... Average Number of Hours Worked Per Week Per Employee..... Do not write on this line..... Do not write on this line.....
FEMALE	Hired by Week	Average Number of Persons of This Class in Your Employ*..... Average Pay Per Employee Per Week, Including Value of Board, Housing, etc., Furnished Average Number of Hours Worked Per Week Per Employee..... Do not write on this line..... Do not write on this line.....
	Hired by Day	Average Number of Persons of This Class in Your Employ*..... Average Pay Per Employee Per Day, Including Value of Board, Housing, etc., Furnished Average Number of Days Worked Per Week Per Employee..... Average Number of Hours Worked Per Week Per Employee..... Do not write on this line..... Do not write on this line.....

*If, for example, you had two employees for one-third of the quarter, the average number employed for the quarter should be entered as $\frac{2}{3}$.

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Office.....County.....State.....

ut it is very important that the record be **COMPLETE**. Approximate answers based
hereby because you cannot remember the precise facts.

Since January 1, 1920, by yourself or other members of your family now 16 years of age
duties in your home.

AND BY MEMBERS OF HIS FAMILY OVER 16 YEARS OLD

AT EACH PERIOD (for example, farmer, teacher, merchant, student, mason)

[illegible]

PERIODS SINCE JANUARY 1, 1920

ired by entering ciphers in the proper spaces

[illegible]

Date of This Report.....

Name of Person Making This Report.....

The Bureau of Markets and Crop Estimates, Washington, D. C.

Form U3

Bureau of the Census, in cooperation with President Harding's

RECORD OF EMPLOYMENT GIVEN BY THE MERCHANT, TRADESMAN, FARMER, DESCRIBED

NOTE:—It is better to use a separate schedule for each distinct establishment, factory, or plant.

Name of Business Man or Concern.....Address:

It is not expected that you will be able to fill out the following tables with exactness but it is
will be accurate enough for our needs. Do not fail to fill this schedule merely because the precise

Please enter in the following spaces a record of the principal occupations followed since
those who have during the entire time been engaged in housework in his own home.

OCCUPATIONS FOLLOWED SINCE JANUARY 1, 1920, BY THE EMPLOYER

Names of Employer and of Members of His Family	Age	Sex	NAME OF PRINCIPAL OCCU		
			1920		
			1st Quarter	2d Quarter	3d Quarter
.....Employer					
.....					
.....					
.....					
.....					
.....					
.....					

RECORD OF EMPLOYEES HIRED BY THE GIVEN EMPLOYER OR

NOTE:—Kindly indicate those periods in which no employees were hired by entering ciphers in the proper spaces.

Fill that ONE of the forms given below which can best be estimated from the memory or records of the employer—either I, II, III, or IV		19	
		1st Quarter	2d Quarter
I	(A) Full Time Hours per Week for Average Employee.....	.....	.....
	(B) Number of Employees on Pay Roll—Average for Quarter.....	.....	.....
	(C) Average Hours Actually Worked per Week per Employee.....	.....	.....
	(D) Average Actual Pay per Week per Employee.....	.....	.....
	(E) Enumerator need not compute this. $D \div C$.....	.....	.....
	(J) Enumerator need not compute this. $B \times C \times G$.....	.....	.....
II	(A) Full Time Hours per Week for Average Employee.....	.....	.....
	(B) Number of Employees on Pay Roll—Average for Quarter.....	.....	.....
	(C) Average Hours Actually Worked per Week per Employee.....	.....	.....
	(D) Enumerator need not compute this. $C \times E$.....	.....	.....
	(E) Average Rate of Pay per Hour per Employee.....	.....	.....
	(J) Enumerator need not compute this. $B \times C \times G$.....	.....	.....
III	(A) Full Time Hours per Week for Average Employee.....	.....	.....
	(F) Total Wages and Salaries Paid During Entire Quarter.....	.....	.....
	(G) Number of Weeks in the Quarter.....	13	13
	(H) Total Wages and Salaries Paid per Week. $F \div G$.....	.....	.....
	(B) Number of Employees on Pay Roll—Average for Quarter.....	.....	.....
	(D) Enumerator need not compute this. $H \div B$.....	.....	.....
IV	(A) Full Time Hours per Week for Average Employee.....	.....	.....
	(B) Number of Employees on Pay Roll—Average for Quarter.....	.....	.....
	(J) Total Employee-Hours Worked During Entire Quarter.....	.....	.....
	(F) Total Wages and Salaries Paid During Entire Quarter.....	.....	.....
	(E) Enumerator need not compute this. $F \div J$.....	.....	.....
	(C) Enumerator need not compute this. $(J \div G) \div B$.....	.....	.....
	(D) Enumerator need not compute this. $E \times C$.....	.....	.....

Person Filling This Schedule: Name.....Address, No. and Street.....

Date of this Report.....1922 Mail this schedule to W. I. King, Special Agent of the Census, 175 Ninth

tion was so detailed that it was impracticable to collect it without the aid of trained enumerators. An effort to obtain an adequate number of voluntary workers who would canvass employees and secure records of their employment and wages met with but limited success. Since the funds available did not permit of the hiring of a large number of enumerators, this inquiry was not pushed and the number of well-filled schedules turned in was not sufficient to constitute a very reliable sample. However, the data obtained by this method have some value, inasmuch as they tend to confirm the conclusions based upon a study of the tables derived from the other types of schedules.¹

In only one respect did a difficulty of interpretation arise. Column (s) calls for "Total Working Days in Period." This number is evidently more or less variable, for some persons work five days weekly and others six or seven. The five day week of school teachers was the most common source of confusion. However, this difficulty was not serious, as the schedule editors usually found data from which to draw conclusions concerning the actual state of affairs.

The second questionnaire was distributed through the courtesy of the Federal Bureau of Markets and Crop Estimates to its Township Crop Reporters. It asked for the occupations followed during the last two years by members of farmers' families and also for the number of employees hired by each farmer, the hours they worked, and the wages they received. Some 8,500 schedules were returned, most of which were found to contain usable information.

This questionnaire proved satisfactory except for the fact that while it asked for a statement of wages, including board, lodging, etc., it did not call for a separate estimate of the value of board, lodging, etc., furnished. Under the circumstances, it is impossible to detect the error if a farmer failed to follow instructions and did not include perquisites with wages. Through such oversights a certain degree of error may have crept into the resulting tabulations.²

The third questionnaire which asked employers in other industries to furnish information similar to that requested of farmers, developed one serious and unexpected defect. The term "Full Time Hours Per Week for Average Employee" proved to be ambiguous. It therefore was found necessary to explain to many informants that this phrase was intended to signify an ideal full-time standard when the plant was in operation rather than the number of hours that the men actually worked or the time that the plant was running. One or two informants felt that the word "Hired" could mean only *taken on* and never *kept in employ*. For some purposes, it

¹ See pages 70-73.

² For a fuller discussion of this point, see Chapter V, pages 135-140.

would have been advantageous had the informants been asked to state whether the figures furnished were or were not taken from actual records. However, in most instances, the nature of the returns seems to indicate their origin. The accuracy of the returns would have been increased—especially in the field of domestic and personal service—if employers had been asked to include as wages the value of any perquisites furnished. The crowded condition of this schedule made it difficult, however, to follow the example set in the report form for farmers by inserting such instructions to the informants. Aside from these points, the schedule seems wholly satisfactory. Its strong features are its completeness and the four optional forms which make it adaptable to the different types of accounts kept by various business men.

Assistance in the distribution of this questionnaire came from many sources. The United States Bureau of the Census gave prompt and effective aid. Numerous teachers of economics and a few other teachers and their students, a considerable number of secretaries of Chambers of Commerce, and a large number of individual business men devoted much time, effort, and money to assisting in the collection of the information.

The Bureau of Railway Economics furnished practically complete data for the railways. The United States Chamber of Commerce circularized its members in behalf of the study. In addition to such voluntary efforts, paid enumerators obtained numerous records from employers in the cities of New York, Chicago, and St. Louis. In all, nearly 3,000 satisfactory records were obtained, covering all sections of the United States and most important fields of industry. The schedules were edited and verified by the National Bureau of Economic Research, but the Bureau of the Census assumed the burden of tabulating the data.

Manifestly, a large proportion of all the records received, especially in the case of smaller concerns, rests upon estimates rather than upon actual accounts. The estimates, however, relate to things concerning which the employer, as a rule, is keenly interested and fully informed; hence there is little reason to suppose that accidental errors in the estimates have materially affected the accuracy of the averages. The belief that the estimates are substantially accurate is supported by the fact that, in almost every industry, the reported data show but a small scatter. In order to test the matter objectively, several groups of schedules were divided into two classes: first, those evidently derived from actual accounts; second, those based upon estimates. This division could not be made with absolute accuracy but, in most instances, the character of the figures on the schedule indicated whether accounts or estimates had been used by the informant. The general tendency is for large concerns to depend upon records and small enterprises to rely upon estimates, hence only six industrial groups were

found which contained enough schedules to give any hope of obtaining statistical regularity and, even in these six groups, the number of informants furnishing data from records was seldom over thirty and in some instances considerably less. In the case of the Food, Beverage, and Tobacco factories, one concern owning half a dozen factories dominated the entire group that apparently used actual records in making up their reports. The schedules from the other industrial groups constituted fairer samples, though smaller than might be desired. The quotients obtained by using the number of employee hours worked in the peak quarter of 1920 as a divisor and the number of employee hours worked in the corresponding quarter of 1921 as a dividend are shown below:

	Number of employees per enterprise	Ratios based upon	
		Records	Estimates
Food, Beverage, and Tobacco Factories	21-100	.79	.88
Metal and Miscellaneous Factories	Over 100	.54	.49
Transportation	21-100	.97	.90
Wholesale Dealers	21-100	.86	.91
Retail Dealers	21-100	.95	.95
Retail Dealers	Over 100	.95	.97

While there is considerable divergence in some instances, there appears to be no constant tendency for the *estimates* to run either higher or lower than those figures secured from informants possessing actual *records*. There is, then, no reason for believing that the use of estimates has biased the results.

Another question of moment is whether enough reports have been deliberately falsified to vitiate the averages. We have no guarantee, of course, that such falsification has not taken place, but it is believed that the fact that the schedules were obtained under the auspices of the Bureau of the Census and that assurance was given to informants that all information would be considered confidential has minimized any tendency to falsification which might have existed. The similarity of the items in the reports received from different employers in the same business leads one to believe that the results are reasonably dependable.

It also is worthy of mention that schedules collected from similar establishments by hired enumerators and those collected by mail lead to identical conclusions regarding tendencies within any given field of employment. The pay roll data secured from factories show the same general trend that appears in similar records published by governmental departments, both State and Federal.

It is highly probable that the *changes* shown by the data are much more typical than are the absolute sizes of some of the quantities. In many instances, for example, an employer cannot estimate very accurately the absolute number of hours worked per week by his employees, but he is likely to know just about how much the average working day has increased or diminished in a given period. On the whole, then, the evidence seems to be sufficient to warrant the conclusion that the results of this inquiry indicate reasonably well the fluctuations that have occurred between January 1, 1920, and March 31, 1922.

Records were secured from employers who hire about one-tenth of all the employees in the United States. However, the proportion differs radically in different industries, a fact that is illustrated by the entries in Table I. Under these circumstances, a simple total or average of all the samples would be highly misleading. To secure significant results, it has, therefore, been necessary to weight all of the items according to the importance of the fields which they represent. The process followed has been first to estimate the ratio of the total number of employees in the United States falling in the given category on August 15, 1920, to the number who on the same date were working for the reporting employers, and then to multiply all items of earnings or hours by these ratios. In this manner, a record is obtained which portrays, as accurately as the data will permit, the results for the Continental United States. Owing to the paucity of existing information concerning the number of employees working for large and for small scale enterprises in such fields as the hand trades, public, domestic, and professional service, or commerce and trade, the weights used may sometimes be very faulty, but, fortunately, the nature of the data is such that it is almost certain that errors arising from this source will not invalidate any of the major conclusions of the study.

Clearly, the degree of reliance which can be placed upon the figures for any group in any industry depends largely upon the size and nature of the sample secured. The necessity of giving full information prevented many concerns from making returns, but since there was obviously no point in adding another fragmentary report to the long list of such studies already existing, it was necessary to secure records only from those informants who could furnish complete data. While this requirement materially lessened the number of reports sent in, the handicap was not great enough to prevent the return by several industries of sufficient schedules to furnish what appear to be entirely adequate samples. True, in the fields of building and construction, other hand trades, and public and professional service, the samples are too small to justify placing much faith in the estimates derived therefrom. The same may be said of the estimates for large-scale agricultural undertakings, and small-scale mining, transportation, financial, and

TABLE I

AN ESTIMATE OF THE PER CENTS OF ALL EMPLOYEES IN THE VARIOUS INDUSTRIAL FIELDS WHO WERE WORKING ON AUGUST 15, 1920, FOR THE EMPLOYERS FROM WHOM REPORTS WERE RECEIVED

INDUSTRY	SIZE OF ENTERPRISE AS MEASURED BY THE NUMBER OF EMPLOYEES	NUMBER OF COMPLETE REPORTS RECEIVED	ESTIMATED THOUSANDS OF EMPLOYEES ACTUALLY WORKING IN ENTIRE U. S.	NUMBER EMPLOYED BY EMPLOYERS RESPONDING TO THIS INQUIRY	ESTIMATED PER CENT OF ALL EMPLOYEES WORKING FOR REPORTING EMPLOYERS
ALL INDUSTRIES	Any Number	9,289	29,180	3,146,682	10.784
	Less than 21	7,996	10,110	25,113	0.248
	21 to 100	642	4,630	36,521	0.789
	Over 100	651	14,440	3,085,048	21.364
AGRICULTURE	Any Number	6,481	2,300 ^a	14,705	0.639
	Less than 21	6,474	2,120	14,171	0.668
	21 to 100	6	130	272	0.209
	Over 100	1	50	262	0.524
EXTRACTION OF MINERALS	Any Number	49	1,120 ^a	56,771	5.068
	Less than 21	6	60	26	0.0433
	21 to 100	7	140	320	0.228
	Over 100	36	920	56,425	6.133
FACTORY WORK	Any Number	866	11,370 ^a	581,879	5.118
	Less than 21	249	1,360	2,672	0.196
	21 to 100	248	1,950	16,902	0.867
	Over 100	369	8,060	562,305	6.976
BUILDING AND CONSTRUCTION	Any Number	72	1,600 ^c	1,400	0.0875
	Less than 21	60	570	497	0.0872
	21 to 100	10	530	462	0.0871
	Over 100	2	500	441	0.0882
OTHER HAND TRADES	Any Number	109	550 ^c	1,370	0.249
	Less than 21	91	280	439	0.156
	21 to 100	16	160	630	0.393
	Over 100	2	110	301	0.273
TRANSPORTATION	Any Number	164	3,420 ^a	2,301,636	67.299
	Less than 21	51	400	549	0.137
	21 to 100	58	220	3,361	0.153
	Over 100	55	2,800	2,297,726	82.062
COMMERCE AND TRADE	Any Number	1,273	2,600 ^b	137,202	5.277
	Less than 21	904	1,650	5,558	0.337
	21 to 100	235	400	11,256	2.814
	Over 100	134	550	120,388	21.889
FINANCE	Any Number	109	400 ^b	29,758	7.439
	Less than 21	50	150	483	0.322
	21 to 100	37	100	2,061	2.061
	Over 100	22	150	27,214	18.142
PUBLIC AND PROFESSIONAL SERVICE	Any Number	20	3,000 ^c	2,454	0.0818
	Less than 21	12	1,600	87	0.00544
	21 to 100	5	400	188	0.047
	Over 100	3	1,000	2,179	0.2179
DOMESTIC AND PERSONAL SERVICE	Any Number	146	2,820 ^b	19,507	0.691
	Less than 21	99	1,920	631	0.0328
	21 to 100	20	600	1,069	0.178
	Over 100	27	300	17,807	5.936

^a Estimates of number of employees and their apportionment probably close to the truth.

^b Total number of employees approximately correct, but apportionment may be widely in error.

^c Estimates very rough.

personal-service enterprises. On the other hand, the sample records from ordinary sized farms, large-scale concerns engaged in mining, transportation, finance, and personal service, and all sizes of factories and commercial enterprises seem large enough to warrant considerable reliance upon the approximate accuracy of the results. The railway figures are the most complete, covering all railroads in Class I—a group conducting some 97 per cent of all railway operations in the country. The geographical distribution of the questionnaires returned appears to be satisfactory since, in most industries, it accords reasonably well with the actual distribution of the enterprises in question.

As previously stated, the object of this volume is to present a general picture of the conditions of employees throughout the United States and the effect upon them of a severe depression such as occurred in 1921. The form in which the figures are presented serves this end. Of course, it is possible that the changes accompanying this particular depression are radically different from those which have characterized other supposedly similar periods. The reader can form his own opinion on this score. At any rate, the figures give a picture of industry in one boom and in one depression and in the transition period connecting them. Later studies will doubtless show which of the phenomena observed characterize all such phases of the economic cycle. If any of the characteristics are typical, it may be possible to carry back the record to earlier periods through the use of index numbers. At least, a study like this furnishes a foundation for further work along similar lines.

CHAPTER II

THE NUMBER OF EMPLOYEES

How important was the reduction in the number of employees brought about by the decline in business activity occurring between 1920 and 1922? The object of this chapter is to answer the above question.

THE COMPARATIVE MEASURABILITY OF EMPLOYMENT AND UNEMPLOYMENT

It will be observed that the purpose is to measure change in the number working as employees rather than variations in the amount of unemployment. This form of stating the problem is imperative and not optional. Several statisticians have compiled satisfactory indices of unemployment but none has succeeded in measuring its absolute volume, and it is safe to say that none will ever obtain a quantitative statement of the extent of this malady which will successfully withstand the attacks of careful critics. The obstacle which prevents the accurate measurement of the quantity of unemployment is the fact that it is a condition subject to as many definitions as there are writers on the subject. This fact becomes apparent when we analyze the conditions that cause people to work or stop working.

Obviously the potential maximum of employment is very much higher than anything ever experienced by present-day Americans. Under conditions of extreme stress all able-bodied persons over seven years of age might work from twelve to fourteen hours daily. Household duties might be reduced to a fraction of their present extent and the entire population outside of the sick, infirm, and small children might devote part or all of the day to what the Census Bureau calls "gainful occupations." Under such circumstances, one could say that employment had reached a maximum. As the country returned to normal, there would, of course, be a tremendous decline in the volume of employment. Would all of this decline represent unemployment? If so, it follows that under normal conditions we experience perhaps fifty per cent of idleness. To most people, however, such a statement seems absurd. They will say that only those desiring employment can be classed as unemployed and that, when the emergency is past, the new percentage of unemployment must be based upon the number desiring work under normal conditions—in other words, that what is sought is a measure of *voluntary* unemployment.

Experience shows, however, that it is exceedingly difficult to ascertain just who is to be counted as desiring work and what conditions are to be considered normal. Thousands of persons are on the border line. Is the sick man to be counted as unemployed? If so, does he still continue in this status if he remains disabled for years? If he is unemployed, does the same hold true of the cripple who has never been able to work regularly?

These problems are not easy to solve, but they are simple as compared to those involving the relations of employment to pay and working conditions in different phases of the business cycle.

It will perhaps be easier to see this last problem in its true light if we consider in connection with it an analogous case in another field. When cotton prices fell sharply during the autumn of 1920, many a farmer felt that prices were too low and refused to sell his crop. True, he could market it readily enough if he were willing to sell for any price offered; but the price he could get commonly would not cover production costs and frequently its acceptance spelled ruin. Therefore, he held on, and much of his cotton remained on his farm unsold. His refusal to market his crop helped to check the price decline and probably prevented prices from falling as low as they otherwise would have done. If he was financially able, he may have held his cotton until prices rose again at the close of 1921. If, however, he was poor, he was forced to sell earlier—even at a serious loss. Eventually, however, either a forced sale, the rising market price, or the deterioration of the old cotton caused his unsold stock to disappear.

Is there not a close parallel between this situation and what occurred in the labor market at about the same dates? It is a well-known fact that, in the latter part of 1920, there was a serious diminution in the volume of orders for factory products with a resulting collapse in the prices of these goods. Since labor is the second largest item of factory costs, employers could not retain their entire force at the old wage level. Not only must they reduce purchases of raw materials: they must also either cut wages or lay off their less essential employees. At a much lower wage rate, many employers could have afforded to manufacture for stock and many more workers could have been retained on the pay rolls. Most of the employees, however, were not disposed to accept a cut when the option was offered—and it was not offered in all cases, for many employers, knowing that a wage reduction meant trouble, closed their factories without stopping to discuss the matter. Like the cotton planters, wage earners very generally held out for the old rates. As a result, many were laid off—in other words, their labor, like the cotton on the Southern plantation, remained unsold. In economic parlance, the price bid by the employer fell below the price asked by the employee, and unemployment was the inevitable result.

Are we to consider the idleness of the employees under such circum-

stances voluntary or involuntary? The cotton farmer held his cotton because he thought it unwise to accept a serious loss when the prospects were that he would get a better price later. The laborers deemed it bad policy to accept a cut because they feared it would be hard to reestablish the wage rates which they had fought hard to win.¹

Eventually, as has been noted, poverty compelled many of the cotton farmers to sell their cotton below cost of production. Table LVII indicates that, by the beginning of 1921, factory laborers were also being compelled by hard times to market their labor at lower prices, and that this process went on throughout the year, for wage rates continued slowly to decline. Table V shows that, by the last quarter of 1921, this process, coupled presumably with a reduction in the stocks of manufactured products on hand, had caused the number of employees at work in manufacturing to increase noticeably. By the spring of 1922 there was, then, less labor unsold, just as on the cotton plantation there was less cotton unsold. In more technical terms, we may say that either when the price at which the employee holds his labor falls below the price which the employer is willing to pay, or when the employer's demand price for labor rises above the holding price of the employee, unemployment disappears.

Whether it was wise or unwise for the cotton farmers to hold their cotton or the factory employees to stand out for the old wage rates must remain largely a matter of opinion. The statistician is not concerned, however, with the merits or demerits of any policy. The only question at issue here is whether the cyclical unemployment of 1921 was voluntary or involuntary. Does the evidence not indicate that many workers had a measure of choice between unemployment and wage maintenance, just as cotton planters had a measure of choice between selling and holding for a better price? Probably, in particular sections, some grades of cotton could not be sold for any price. Presumably, likewise, in certain localities, given classes of workers might not have been able to sell their labor at any wage, but there are no data showing the number of such cases. Without such figures, how can we measure the amount of unemployment which is involuntary?

The crucial difficulty in measuring the per cent of involuntary unemployment is, then, the fixing of a base. The evidence shows that this base is practically indeterminate. The best method of dealing with the problem seems therefore to be to cut the Gordian knot and to treat of employment

¹ Colonel M. C. Rorty, one of the Bureau's directors, comments as follows: "Laborers might not necessarily lose in the long run if, in times of depression, they were prompt to accept wage liquidations. There is a theory, which is at least worthy of consideration, that the principal reason for the greater severity of business crises in modern times is that wage earners are better organized and hold out for a longer time against necessary wage liquidations."

rather than unemployment. Here we have a really tangible quantity. No elusive base is involved. We can deal with a unit susceptible of statistical measurement—a week's work, a day's work, or an hour's work for one employee. We can ascertain the changes that have taken place from time to time in the total number of days or of employee hours worked and in this way we can measure definitely one of the effects of the business cycle upon the employees of the country. It is this method that is pursued in the following pages.

DO EMPLOYEES SHIFT FROM ONE INDUSTRY TO ANOTHER?

Pay roll statistics have been compiled for a number of years by the Massachusetts Bureau of Statistics for Massachusetts factories. In recent years, similar data have been collected elsewhere. These records have shown large fluctuations in the numbers employed. It has, however, always been a matter of doubt as to whether diminutions in the numbers on the factory pay rolls did or did not represent a falling off in the total volume of employment. Might it not be true that the decline in factory employment represented mainly a shift of employees from the manufacturing field to other industries? Hitherto, no information has been available which would enable one to answer this question. In the present investigation, the attempt has been made to throw light upon this subject from two different directions. First, inquiries have been made to ascertain whether given individuals have shifted their occupations from one industry to another. Second, employers in all important industries have been canvassed to see whether any industry has taken on the employees laid off by the factories. The results of the first inquiry are shown in Tables II, III, and IV.

The chief impression received from a careful study of Table II is one of stability. Manifestly there has been no tendency worth mentioning for the sons or daughters to change occupations because of the fluctuations of the business cycle. The number of factory workers in this group declined by less than a dozen persons. The only shift of moment was the movement of those not gainfully occupied into the ranks of professional service, commerce, and trade, and this change is explained mainly by the fact that a considerable number of boys and girls finished school during the period and began clerking in stores or teaching school.

Table III gives a similar record for the families of entrepreneurs. Those reporting this information for their families are for the most part men doing business on a small scale. They have given quarter by quarter the occupations followed by themselves or by members of their respective families. This table shows even less evidence of change than does Table II. Evidently, the period 1920 to 1922 witnessed no important shift in the industrial affiliations of the members of the families of the reporting entrepreneurs.

EMPLOYMENT HOURS AND EARNINGS

TABLE II

THE NUMBER OF MEMBERS OF 8,477 REPRESENTATIVE ^a FARMERS' FAMILIES WHO WERE 16 YEARS OF AGE OR OVER IN 1922 AND THE INDUSTRIES IN WHICH THEY HAD BEEN EMPLOYED		1920				1921				1922
SEX	INDUSTRY	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
MALE	All Industries	14,643	14,643	14,643	14,643	14,642	14,641	14,639	14,637	14,637
	Agriculture.....	11,671	12,312	12,993	11,810	11,717	12,324	12,909	11,786	11,739
	Extraction of Minerals.....	30	24	28	37	38	32	44	46	51
	Factory Production.....	100	90	93	107	100	73	83	94	88
	Construction.....	100	99	113	104	85	113	134	124	98
	Other Hand Trades.....	161	125	134	152	163	131	125	138	165
	Transportation.....	197	174	192	198	201	182	191	197	198
	Commerce and Trade.....	273	220	232	277	295	249	265	311	325
	Finance.....	64	58	60	69	67	63	66	75	70
	Public and Professional Service.....	406	278	221	380	405	287	225	423	420
	Domestic and Personal Service.....	22	16	29	23	24	22	31	26	26
	Not Gainfully Occupied.....	1,484	1,126	423	1,371	1,423	1,057	444	1,290	1,336
	Industry Unknown.....	133	121	125	115	124	108	122	127	121
	All Industries	6,614	6,614	6,612	6,612	6,611	6,611	6,611	6,609	6,609
FEMALE	Agriculture.....	26	29	43	29	28	32	48	32	34
	Extraction of Minerals.....	..	..	..	..	..	..	..	..	..
	Factory Production.....	15	15	12	15	15	16	13	19	18
	Construction.....	..	..	..	..	..	..	..	..	..
	Other Hand Trades.....	25	27	27	27	27	26	28	27	27
	Transportation.....	26	26	30	29	29	31	31	31	31
	Commerce and Trade.....	126	128	145	134	130	134	152	145	137
	Finance.....	9	8	9	10	11	10	8	8	8
	Public and Professional Service.....	603	553	228	650	664	604	245	716	722
	Domestic and Personal Service.....	64	67	79	71	75	74	88	81	84
	Not Gainfully Occupied.....	5,683	5,723	6,004	5,610	5,596	5,651	5,965	5,513	5,508
	Industry Unknown.....	37	38	35	37	36	33	33	37	40
	All Industries	6,614	6,614	6,612	6,612	6,611	6,611	6,611	6,609	6,609
	Agriculture.....	26	29	43	29	28	32	48	32	34
	Extraction of Minerals.....	..	..	..	..	..	..	..	..	..
	Factory Production.....	15	15	12	15	15	16	13	19	18
	Construction.....	..	..	..	..	..	..	..	..	..
	Other Hand Trades.....	25	27	27	27	27	26	28	27	27
	Transportation.....	26	26	30	29	29	31	31	31	31
	Commerce and Trade.....	126	128	145	134	130	134	152	145	137
	Finance.....	9	8	9	10	11	10	8	8	8
	Public and Professional Service.....	603	553	228	650	664	604	245	716	722
	Domestic and Personal Service.....	64	67	79	71	75	74	88	81	84
	Not Gainfully Occupied.....	5,683	5,723	6,004	5,610	5,596	5,651	5,965	5,513	5,508
	Industry Unknown.....	37	38	35	37	36	33	33	37	40

^a Information obtained from U. S. Agricultural Department's Crop Reporters. All Sections of the Continental United States; represented in approximately correct proportions. Many farmers failed to report the occupations of other members of their families; hence the relatively small number of women accounted for otherwise than as "Not Gainfully Occupied."

TABLE III

THE INDUSTRIES ENGAGED IN DURING 1920 AND 1921 BY PERSONS WHO IN 1922 WERE MEMBERS OF THE FAMILIES OF REPORTING ENTREPRENEURS (EXCLUDING FARMERS) AND WHO WERE THEN 16 YEARS OF AGE OR OVER^a

Sex	Industry	1920				1921				1922
		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
MALE	All Industries	1,415	1,415	1,415	1,414	1,414	1,414	1,415	1,415	1,415
	Agriculture.....	163	175	219	168	165	177	220	172	169
	Extraction of Minerals.....	4	6	4	4	4	6	5	5	5
	Factory Work.....	147	145	147	145	148	148	150	148	149
	Building and Construction.....	70	73	74	70	68	69	72	68	68
	Other Hand Trades.....	92	90	92	89	91	92	93	90	90
	Transportation.....	14	15	16	16	15	16	17	16	16
	Commerce and Trade.....	615	615	626	616	616	616	629	622	621
	Finance.....	19	19	19	18	20	19	19	20	18
	Public and Professional Service.....	22	22	24	23	22	21	22	17	17
	Domestic and Personal Service.....	86	87	91	89	87	89	92	89	88
	Not Gainfully Occupied.....	163	148	82	157	159	143	74	148	152
	Industry Unknown.....	20	20	21	19	19	18	22	20	22
FEMALE	All Industries	487	487	487	487	487	487	487	487	487
	Agriculture.....	1	1	3	2	1	1	3	2	1
	Factory Work.....	17	16	18	16	16	16	18	16	16
	Other Hand Trades.....	12	12	12	12	12	12	13	13	13
	Transportation.....	2	2	2	2	2	2	2	2	2
	Commerce and Trade.....	70	70	72	70	71	71	72	70	72
	Finance.....	3	3	3	5	3	3	5	3	3
	Public and Professional Service.....	37	37	36	39	39	39	36	41	40
	Domestic and Personal Service.....	29	31	34	32	31	33	35	32	31
	Not Gainfully Occupied.....	290	289	283	284	288	287	282	285	286
	Industry Unknown.....	26	26	24	25	24	23	21	23	23

^a Females working on the home farm are classed as "Not Gainfully Occupied."

TABLE IV

**THE INDUSTRIAL ATTACHMENTS OF 658 PERSONS WHO WERE EMPLOYEES
AT LEAST PART OF THE TIME IN 1920 OR 1921 AND WHO WERE
OVER 15 YEARS OLD IN 1922**

	1920	1921-1922				
	Mar. Apr. May	Mar. Apr. May	June July Aug.	Sept. Oct. Nov.	Dec. Jan. Feb.	
MALE EMPLOYEES						
All Industries.....	516	534	535	536	542	
Agriculture.....	34	34	40	34	33	
Extraction of Minerals	39	41	42	40	39	
Factories.....	130	131	129	132	135	
Building and Construction.....	42	45	48	49	50	
Other Hand Trades.....	9	11	11	9	10	
Transportation.....	62	57	66	61	63	
Commerce and Trade.....	75	90	96	92	90	
Finance.....	16	18	19	20	21	
Public and Professional Service.....	31	36	32	36	39	
Domestic and Personal Service.....	23	25	30	31	30	
Industry Unknown.....	10	9	11	9	10	
Not Gainfully Occupied.....	45	37	11	23	22	
FEMALE EMPLOYEES						
All Industries.....	142	145	147	148	147	
Factories.....	28	30	32	30	31	
Building and Construction.....	2	2	1	1	1	
Other Hand Trades.....	3	4	4	4	5	
Transportation.....	10	11	12	10	10	
Commerce and Trade.....	20	23	24	26	25	
Finance.....	7	7	9	10	10	
Public and Professional Service.....	21	23	23	26	26	
Domestic and Personal Service.....	23	24	26	30	30	
Industry Unknown.....	2	1	1	1	1	
Not Gainfully Occupied.....	26	20	15	10	8	

Table IV records the changes in the industrial attachments of 658 employees scattered over the United States. Those who were out of work were assigned for this classification to the last industry in which they had been employed. This accounts for the small number reported as not gainfully occupied. Those doing clerical work of an unspecified nature were assigned arbitrarily to "Commerce and Trade." When this fact is considered, the table seems simply to emphasize the same points brought out by the two previously considered—namely, that the only change of moment has been occasioned by boys and girls finishing school and going to work.

The combined evidence of the three tables is that the transition from a boom to a depression is accompanied by practically no shift of workers

from one industrial field to another. If this is true, employees laid off in an industry must, for the most part, either remain idle or go to work on their own account—often at such casual work as canvassing or peddling. More light upon the validity of this conclusion will be furnished by Tables V, VI, VII, and VIII, which show the average numbers of employees on the pay rolls of the various industries in each quarter during the period.

CHANGES IN THE NUMBERS EMPLOYED IN VARIOUS INDUSTRIES

In the last column of these tables are entered figures intended to show the decline in employment brought about by the cycle. Since many of the industries under consideration are seasonal and since no data are available which make it possible to eliminate the seasonal swings, it has been necessary to compare the figures for corresponding quarters only, in order to avoid gross error in the case of seasonal industries. In such instances, the procedure followed has been first to ascertain the maximum difference between corresponding quarters and then to divide this difference by the number employed in the first quarter of the pair chosen. While frequently this method will produce results somewhat smaller than the actual maximum decline, the error is not likely to be large enough to vitiate the comparison of one industry with another.

When the figures show an increase from one year to another, the rule followed has been to take the minimum increase between corresponding quarters. This method seems to give a fair comparison, for, in most instances, the quarters compared are the same as those used in measuring the maximum decline in several other industries. Practically the same procedure has been followed in computing the last column of a large number of the tables in this volume.

The figures that appear in this and many of the succeeding tables are not the totals of the samples sent in, but rather the estimated totals for the country as a whole. The items have been given weights representing the estimated numbers employed in the respective industrial fields in order that errors due to faulty sampling may be reduced to a minimum.¹ This procedure enables us to form an intelligible picture of what really happened to the number employed in the United States as a whole.

Table V indicates that 5,033,000 fewer workers were on the pay rolls in the early part of 1922 than were employed in the third quarter of 1920. However, part of this decline was seasonal. If we compare the third quarters, we discover that there were 4,102,000 fewer people at work in 1921 than in 1920, or about one-seventh of all who had been employed at the earlier date.

¹ As is shown in Table I, in certain important industries reports were received for relatively few employees; while in other less important fields, many more employees were accounted for.

EMPLOYMENT HOURS AND EARNINGS

TABLE V

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL NUMBER OF EMPLOYEES ON THE PAY ROLLS OF ALL ENTERPRISES OF WHATEVER SIZE

INDUSTRY	THOUSANDS OF EMPLOYEES ON THE PAY ROLLS								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	27,232	28,378	29,180	27,416	24,828	24,598	25,078	24,774	24,147	14.06
Agriculture.....	1,370	1,871	2,300	1,724	1,355	1,823	2,204	1,666	1,372	4.17
Extraction of Minerals.....	1,047	1,072	1,120	1,077	1,011	960	944	862	819	26.88
Building and Construction.....	1,240	1,492	1,600	1,307	1,104	1,211	1,404	1,404	1,320	18.83
Other Hand Trades.....	548	575	550	568	554	581	565	572	561	.70 ^d
Finance.....	390	399	400	396	398	382	398	373	374	6.75
Public and Professional Service.....	3,075	3,022	3,000	3,047	3,120	2,973	2,940	3,161	3,269	2.00
Domestic and Personal Service.....	2,683	2,763	2,820	2,781	2,741	2,753	2,786	2,701	2,661	2.88
All Transportation.....	3,169	3,243	3,420	3,352	2,847	2,739	2,865	2,922	2,674	16.23
Steam Railways.....	2,032	2,044	2,200	2,101	1,724	1,599	1,710	1,741	1,586	22.27
Other Transportation.....	1,136	1,199	1,220	1,251	1,123	1,140	1,155	1,181	1,088	5.60
Commerce and Trade.....	2,562	2,606	2,600	2,656	2,507	2,527	2,520	2,582	2,477	3.08
Wholesale.....	288	303	300	286	274	284	284	273	265	6.27
Retail.....	2,274	2,303	2,300	2,370	2,233	2,242	2,236	2,309	2,212	2.78
All Factories.....	11,149	11,334	11,370	10,507	9,189	8,648	8,460	8,532	8,621	25.59
Food, Drink, and Tobacco.....	1,048	1,015	1,120	1,075	881	858	959	952	861	15.94
Lumber and Its Products.....	985	1,062	1,050	912	839	928	915	852	855	14.82
Metals and Metal Products ^a	5,104	5,213	5,200	4,743	3,901	3,305	2,979	3,020	3,238	42.85
Paper and Printing.....	639	636	640	666	619	602	599	623	620	6.46
Mineral Products ^b	878	881	910	892	793	748	750	763	760	17.80
Textile and Leather Products ^c	2,495	2,525	2,450	2,220	2,155	2,206	2,257	2,322	2,287	14.65

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Increase = minimum for corresponding quarters.

Though one is impressed by the very great seasonal fluctuations in agricultural employment, there is no evidence of any startling change brought about in that field by the business cycle. There was apparently a slight tendency for farmers to hire fewer employees during the depression, but in corresponding quarters the number of employees diminished by only about 100,000. In the light of this evidence there is then no reason to believe that the farmers took on any considerable number of the workers whom the factories, mines, and railways laid off. Since the sample of farms secured is large enough to be representative, this conclusion seems to rest on a firm foundation and strengthens the indications given by the figures pertaining to entrepreneurs' families that the depression was accompanied by a striking decline in the total volume of employment in the urban industries of the United States. When the agricultural industry is excluded, the decline in other fields is shown to be almost exactly 4,000,000, which accords very well indeed with the estimates by experts made for the President's Conference on Unemployment in September, 1921.¹

In Tables VI, VII, and VIII, the pay-roll records are divided according to the size of the enterprise as measured by the number of workers employed. These tables show that concerns having over 100 employees in the first quarter of 1920 laid off 3,300,000 out of the 4,100,000 who were removed from the pay rolls, while two-thirds of the remaining reduction occurred in enterprises employing 21 to 100 persons at the date mentioned and this despite the fact that about one-third of all employees work for employers hiring fewer than 21 persons. Of the seventeen industrial groups for which records appear in the table, only five showed a cyclical falling off in numbers employed of as much as 6 per cent for enterprises in which fewer than 21 employees were working in 1920, while, in the large scale enterprises, 12 out of the 17 register declines of more than 10 per cent.

Although these records give unequivocal evidence that it is primarily the large concern which is affected by a business depression, it is by no means easy to determine why this should be the case. It is possible that the small employer keeps less accurate accounts, and since he is not in a position to judge as to what size of working force is most advantageous, the number of persons on his pay roll depends largely upon custom rather than upon the size of current profits. Perhaps the small employer, being well acquainted with his employees, is so much interested in the welfare of the latter that his relationships with them are not governed primarily by purely business considerations. It may be that the demand for the products of small establishments is inherently more stable than that for the output of the larger concerns. It is not unlikely that the smaller concern, as compared to the larger one, is usually in closer touch with the consumer of its products—for

¹ See pages 38 and 47 to 53 of the *Report* of that Conference.

TABLE VI

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL NUMBER OF EMPLOYEES ON THE PAY ROLLS
OF ALL ENTERPRISES HAVING FEWER THAN 21^c EMPLOYEES**

INDUSTRY	THOUSANDS OF EMPLOYEES ON THE PAY ROLLS								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	8,656	9,449	10,110	9,273	8,555	9,235	9,843	9,162	8,739	2.64
Agriculture.....	1,231	1,670	2,120	1,562	1,199	1,667	2,059	1,524	1,246	2.88
Extraction of Minerals.....	55	58	60	53	53	78	83	67	58	3.64
Building and Construction.....	443	524	570	522	406	453	546	555	503	13.55
Other Hand Trades.....	277	298	280	289	277	293	280	284	283	1.73
Finance.....	146	154	150	151	153	155	155	155	153	0.65 ^d
Public and Professional Service.....	1,582	1,582	1,600	1,471	1,545	1,490	1,526	1,526	1,637	5.82
Domestic and Personal Service.....	1,762	1,832	1,920	1,856	1,817	1,841	1,908	1,789	1,756	3.61
All Transportation.....	377	403	400	453	366	390	395	444	360	3.23
Steam Railways.....	37	403	400	453	366	390	395	444	360	3.23
Other Transportation.....	377	403	400	453	366	390	395	444	360	3.23
Commerce and Trade.....	1,620	1,646	1,650	1,674	1,627	1,642	1,640	1,662	1,624	0.72
Wholesale.....	49	50	50	51	50	50	50	50	49	2.00
Retail.....	1,570	1,597	1,600	1,623	1,577	1,591	1,590	1,612	1,574	0.68
All Factories.....	1,165	1,283	1,360	1,242	1,111	1,227	1,251	1,156	1,121	8.01
Food, Drink, and Tobacco.....	226	249	300	268	225	238	283	253	231	5.67
Lumber and Its Products.....	430	475	470	404	364	435	394	339	344	16.17
Metals and Metal Products ^a	100	113	140	121	106	98	115	107	101	30.00
Paper and Printing.....	170	174	170	185	186	185	180	195	184	1.08
Mineral Products ^b	121	130	140	143	124	133	137	137	134	4.20
Textile and Leather Products ^c	119	142	140	120	107	138	142	125	127	10.08

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Increase—minimum for corresponding quarters.

^e Enterprises are classified according to the number of employees in the first quarter of 1920.

TABLE VII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL NUMBER OF EMPLOYEES ON THE PAY ROLLS OF ALL ENTERPRISES HAVING 21 TO 100^d EMPLOYEES

INDUSTRY	THOUSANDS OF EMPLOYEES ON THE PAY ROLLS								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					1922
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		First quarter
All Industries.....	4,213	4,536	4,630	4,457	4,190	4,125	4,084	4,098	3,956	14.56
Agriculture.....	113	164	130	118	119	125	111	112	114	23.78
Extraction of Minerals.....	147	133	140	146	153	153	154	89	79	46.26
Building and Construction.....	379	462	530	476	473	449	458	435	389	13.58
Other Hand Trades.....	166	163	160	165	163	168	166	169	162	3.57
Finance.....	95	96	100	101	102	105	103	103	102	2.86
Public and Professional Service.....	391	387	400	383	364	372	391	385	362	7.42
Domestic and Personal Service.....	644	634	600	619	622	614	581	617	612	4.97
All Transportation.....	197	211	220	212	197	196	202	192	192	9.43
Steam Railways.....	..	..	..	..	..	..	..	..	..	..
Other Transportation.....	197	211	220	212	197	196	202	192	192	9.43
Commerce and Trade.....	391	400	400	409	385	383	378	388	371	5.50
Wholesale.....	97	98	100	96	93	91	91	91	89	11.00
Retail.....	294	302	300	312	292	292	287	297	282	4.81
All Factories.....	1,691	1,886	1,950	1,827	1,615	1,561	1,541	1,607	1,573	20.97
Food, Drink, and Tobacco.....	250	253	280	297	232	229	247	264	225	11.79
Lumber and Its Products.....	271	309	300	243	229	245	260	245	251	20.71
Metals and Metal Products ^a	232	382	420	348	263	192	175	202	216	58.33
Paper and Printing.....	169	169	170	176	160	155	155	167	164	8.82
Mineral Products ^b	247	243	250	257	240	231	232	246	243	7.20
Textile and Leather Products ^c	522	532	530	506	492	509	472	483	474	11.28

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Enterprises are classified according to the number of employees in the first quarter of 1920.

TABLE VIII

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL NUMBER OF EMPLOYEES ON THE PAY ROLLS
OF ALL ENTERPRISES HAVING OVER 100^e EMPLOYEES**

INDUSTRY	THOUSANDS OF EMPLOYEES ON THE PAY ROLLS								MAXIMUM CYCLICAL DECLINE (Per Cent)
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries	14,363	14,392	14,440	13,687	12,082	11,240	11,151	11,515	11,452
Agriculture	26	37	50	44	38	32	34	30	13
Extraction of Minerals	845	881	920	878	806	729	707	705	683
Building and Construction	418	506	500	310	226	310	412	414	427
Other Hand Trades	105	114	110	114	114	120	119	119	117
Finance	149	149	150	145	143	124	122	116	119
Public and Professional Service	1,102	1,053	1,000	1,193	1,211	1,111	1,022	1,250	1,271
Domestic and Personal Service	277	298	300	306	302	298	297	295	293
All Transportation	2,595	2,630	2,800	2,686	2,284	2,153	2,268	2,287	2,121
Steam Railways	2,032	2,044	2,200	2,101	1,724	1,599	1,710	1,741	1,586
Other Transportation	563	586	600	586	560	555	558	546	535
Commerce and Trade	552	560	550	573	496	502	502	532	482
Wholesale	141	156	150	139	132	143	143	132	127
Retail	410	404	400	434	364	359	359	400	356
All Factories	8,294	8,165	8,060	7,438	6,463	5,861	5,668	5,769	5,927
Food, Drink, and Tobacco	572	513	540	511	424	390	429	435	405
Lumber and Its Products	285	279	280	264	247	248	261	268	260
Metals and Metal Products ^a	4,771	4,719	4,640	4,273	3,532	3,015	2,689	2,711	2,921
Paper and Printing	300	294	300	306	274	263	264	261	273
Mineral Products ^b	511	509	520	491	429	385	381	379	383
Textile and Leather Products ^c	1,854	1,852	1,780	1,594	1,556	1,560	1,644	1,715	1,685

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Increase—minimum for corresponding quarters.

^e Enterprises are classified according to the number of employees in the first quarter of 1920.

^f Sample too small to be dependable.

example, makes more of its goods to order—and that this more direct connection lessens the tendency to accumulate too large stocks or to overproduce in periods when business men in general are unduly optimistic. Perhaps in times of depression, when “hand-to-mouth” buying is the rule, the small concern profits by taking numerous small orders, none of which would justify the attention of a large plant that had shut down or reduced its force. Without further research, it is impossible to say whether the tendency of large employers to give less stable employment than do the smaller concerns arises from some of the causes just suggested or whether it has an entirely different origin. The discovery that unemployment is directly correlated with the size of the enterprise opens up, however, a whole vista of surmises concerning the probable history of unemployment and its relation to industrial organization. Did cyclical unemployment come into being only after the advent of concerns hiring thousands of employees? Is the business cycle an outgrowth of industrial concentration? Such questions are alluring—but, unfortunately, this interesting field of speculation lies beyond the scope of the present inquiry.

Although the tables record a wide divergence between different industries in the extent of the decline, nearly all of them are alike in showing at the time of the depression a reduction in total numbers employed. True, the miscellaneous hand trades show the numbers on the pay rolls increased, but the gain was entirely negligible. Agriculture, public, professional, and domestic service, miscellaneous transportation enterprises, retail and wholesale concerns, paper and printing establishments, and financial institutions all succeeded in retaining the bulk of their employees. Mines, steam railways, factories, and building enterprises were, as a rule, hard hit. Factories engaged in turning out metal products, vehicles, and the like suffered most of all, the medium-sized establishments in this group reducing their working forces by more than one-half. The large factories included in this category laid off more than forty per cent of their working forces and conditions were reported to be as bad in medium-sized mines and in large scale construction enterprises.

The Bureau of the Census compiled for this study more detailed tables than it is possible to present in the limited space here available and it is worth while to note a few points therefrom in regard to the effect of the cycle in different geographical sections of the United States. The decline in employment in financial institutions was confined almost entirely to large scale enterprises in the northeastern part of the country. The South laid off a larger proportion of workers in textile and chemical mills than did other regions. In most industries, however, the effects of the cycle appear to have been much the same throughout the United States.

THE NUMBER OF EMPLOYEES ON FARMS

Statistics concerning employment in agriculture have heretofore been almost non-existent, and the information secured by this inquiry appears to be so thoroughly representative that it is worth while to present the results in some detail. Table V shows that the farmers of the country, even though they apparently did not allow the cycle to affect materially the number of men hired, nevertheless employed about 900,000 more workers in the third than in the first quarter of each year. Seasonal unemployment among agricultural workers represents, then, a quantity of the first magnitude.

Table IX records the average number of employees working on a single farm in each of the quarters under consideration. The fact should be kept in mind, however, that the Crop Reporters of the United States Department of Agriculture are not typical farmers but employ far more help than do the average of their neighbors. That such is the case is made evident by the figures in Table IX. This table shows that, in 1920, the average Crop Reporter kept in his employ 1.46 men. If every farmer employed an equal number of male workers, the total for the United States would amount to about nine million hired men. The Census of Occupations for 1920, however, shows that on January 1 of that year there were only 1,843,307 males classed as hired agricultural laborers. Though the Census count, because of the season of the year when made, may be too low to represent the average it is, nevertheless, clear that the typical Crop Reporter hires three to five times as much labor as do farmers in general. The figures in Tables IX to XII, therefore, cannot be considered representative as to absolute numbers but there is, notwithstanding, every reason to believe that they are satisfactory criteria of the relative conditions existing in different sections of the United States; for it is highly probable that, in regions where much help is hired, the Crop Reporters hire many employees, and vice versa.

Table IX shows how much greater are the seasonal variations in the North than in the South—and the striking seasonal changes characterizing the Rocky Mountain section. This table also makes the fact clear that, as a rule, farmers in the extreme East and West hire much more help than do those in the Mississippi Valley, the New England or Pacific farmer finding work for approximately three times as many assistants as does the farmer in the North Central section.

In general, five times as many men as women are employed on the farms of the United States. Of the male employees, about as many are hired by the month as by the day, and of the female employees nearly twice as many are hired by the day as by the week. As might be expected, day

TABLE IX

**NUMBER OF HIRED EMPLOYEES WORKING ON THE AVERAGE FARM OWNED BY A UNITED STATES DEPARTMENT
OF AGRICULTURE CROP REPORTER**

SECTION	SEX OF WORKERS	WORKING BY	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
ENTIRE UNITED STATES	Both	Total	1.30	1.77	2.24	1.67	1.28	1.78	2.19	1.62	1.33
	Male	Month	0.63	0.82	0.88	0.73	0.62	0.81	0.86	0.71	0.63
	Male	Day	0.45	0.66	1.00	0.67	0.45	0.68	0.99	0.66	0.48
	Female	Day	0.13	0.19	0.24	0.18	0.12	0.19	0.22	0.16	0.13
NEW ENGLAND	Female	Week	0.09	0.10	0.12	0.09	0.09	0.10	0.12	0.09	0.09
	Both	Total	1.77	2.43	3.52	2.51	1.82	2.53	3.66	2.54	1.79
	Male	Month	0.83	1.01	1.15	0.99	0.85	1.08	1.16	1.02	0.86
	Male	Day	0.62	1.02	1.75	1.07	0.65	1.05	1.82	1.07	0.63
MIDDLE ATLANTIC	Female	Day	0.16	0.21	0.39	0.26	0.15	0.20	0.45	0.25	0.13
	Female	Week	0.16	0.19	0.23	0.19	0.17	0.20	0.23	0.20	0.17
	Both	Total	1.35	1.89	2.61	1.75	1.38	1.93	2.53	1.78	1.45
	Male	Month	0.86	1.02	1.24	0.99	0.86	1.06	1.19	0.98	0.89
EAST NORTH CENTRAL	Male	Day	0.33	0.59	0.85	0.57	0.35	0.60	0.91	0.60	0.41
	Female	Day	0.07	0.17	0.28	0.08	0.07	0.18	0.25	0.09	0.07
	Female	Week	0.09	0.11	0.24	0.11	0.10	0.09	0.18	0.11	0.08
	Both	Total	0.65	1.00	1.27	0.83	0.62	1.01	1.21	0.85	0.62
WEST NORTH CENTRAL	Male	Month	0.38	0.56	0.59	0.45	0.37	0.55	0.57	0.45	0.36
	Male	Day	0.18	0.32	0.54	0.28	0.16	0.34	0.50	0.29	0.17
	Female	Day	0.05	0.06	0.08	0.05	0.05	0.06	0.08	0.06	0.05
	Female	Week	0.04	0.06	0.06	0.05	0.04	0.06	0.06	0.05	0.04
	Both	Total	0.61	1.02	1.63	0.95	0.59	1.00	1.48	0.87	0.62
	Male	Month	0.42	0.64	0.72	0.53	0.40	0.59	0.66	0.49	0.40
	Male	Day	0.11	0.26	0.76	0.31	0.12	0.29	0.67	0.29	0.14
	Female	Day	0.02	0.04	0.05	0.05	0.02	0.05	0.06	0.03	0.02
	Female	Week	0.06	0.08	0.10	0.06	0.05	0.07	0.09	0.06	0.06

TABLE IX—(CONT.)

NUMBER OF HIRED EMPLOYEES WORKING ON THE AVERAGE FARM OWNED BY A UNITED STATES DEPARTMENT
OF AGRICULTURE CROP REPORTER

SECTION	SEX OF WORKERS	WORKING BY	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
SOUTH ATLANTIC	Both	Total	2.95	3.31	3.33	3.10	2.64	3.21	3.14	2.89	2.59
	Male	Month	1.24	1.39	1.35	1.28	1.15	1.31	1.28	1.19	1.12
	Male	Day	1.05	1.20	1.25	1.13	0.96	1.21	1.21	1.10	0.96
	Female	Day	0.49	0.54	0.55	0.18	0.35	0.51	0.47	0.33	0.33
EAST SOUTH CENTRAL	Female	Week	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Both	Total	1.82	2.30	2.29	2.00	1.81	2.29	2.33	2.07	2.04
	Male	Month	0.77	0.93	0.90	0.81	0.80	0.94	0.90	0.88	0.85
	Male	Day	0.72	0.88	0.91	0.80	0.69	0.88	0.98	0.79	0.81
WEST SOUTH CENTRAL	Female	Day	0.26	0.40	0.40	0.32	0.24	0.38	0.37	0.32	0.28
	Female	Week	0.07	0.09	0.08	0.07	0.08	0.09	0.08	0.08	0.10
	Both	Total	1.42	1.86	1.97	1.94	1.41	1.86	1.91	1.81	1.60
	Male	Month	0.43	0.51	0.52	0.52	0.43	0.51	0.50	0.50	0.44
MOUNTAIN	Male	Day	0.70	0.94	1.04	1.04	0.73	0.95	1.04	0.98	0.82
	Female	Day	0.15	0.26	0.28	0.24	0.12	0.26	0.23	0.20	0.21
	Female	Week	0.14	0.15	0.13	0.14	0.13	0.14	0.14	0.13	0.13
	Both	Total	0.64	1.26	2.25	1.07	0.63	1.22	2.23	1.04	0.68
PACIFIC	Male	Month	0.44	0.77	1.03	0.58	0.42	0.74	0.99	0.55	0.44
	Male	Day	0.13	0.39	1.06	0.39	0.13	0.39	1.08	0.40	0.16
	Female	Day	0.04	0.06	0.09	0.07	0.05	0.06	0.10	0.07	0.05
	Female	Week	0.03	0.04	0.07	0.03	0.03	0.03	0.06	0.02	0.03
	Both	Total	1.82	2.57	3.95	2.53	1.83	2.70	3.93	2.57	1.83
	Male	Month	0.90	1.16	1.29	0.95	0.92	1.21	1.39	0.99	0.92
	Male	Day	0.82	1.23	2.26	1.32	0.82	1.29	2.19	1.37	0.81
	Female	Day	0.04	0.09	0.31	0.20	0.03	0.11	0.25	0.14	0.04
	Female	Week	0.06	0.09	0.09	0.06	0.06	0.09	0.10	0.07	0.06

work by females is most common in the East and the South. The North Central and Rocky Mountain farmers employ little female help of any kind.

Table X shows the way in which the various classes of farm labor are distributed on the farms of the Crop Reporters of the United States Department of Agriculture.

The figures indicate that one employee of either class is the most common number hired. Scarcely one Crop Reporter in a hundred hires as many as ten laborers from either class of employees. But this merely illustrates the well known fact that farming remains a small scale industry.

While it is probable that females are, as a rule, hired by the day to do a different type of work on farms from that performed by those employed by the week, the duties of male agricultural workers are much the same whether they work by the day or by the month. It has appeared worth while, therefore, to construct Table XI which classifies the farms of the United States on the basis of all male employees at work without regard to the form of contract existing. This table shows that the modal Crop Reporter in every section of the United States hires an average of less than two employees and that, even in rush seasons, one-third of these farmers hire no men.

Tables XII and XIII portray the distribution of female workers on the farms of the United States. Table XII indicates that nine-tenths of the Crop Reporters of the country hire no female labor by the day. As might be expected, the number of farms utilizing female day workers is proportionately much larger in the South and East than in other sections of the United States. The most common number of workers, however, does not rise above 2 in any section of the country.

The farm of the novel, with its inevitable "hired girl," seems to be anything but typical in the United States of today. According to Table XIII, only about one Crop Reporter in sixteen can boast of such an assistant to his wife, and, for reasons previously stated, it is probable that female help is still more rare on the average farm. In this regard no section of the country seems to differ widely from any other. The North Central region shows the greatest seasonal swing, indicating that the hired girl is there somewhat more closely connected with the rush of summer work than is the case in other sections.

An extremely small proportion of farmers' wives employ on the average as many as two hired girls, even in the rush seasons. Among Crop Reporters' wives in the entire United States, not even one in sixty had as many as two female assistants hired by the week. It appears that whether or not farm servants ever have been numerous, at the present time they constitute a rare species.

TABLE XI

**FARMS OF CROP REPORTERS FOR THE UNITED STATES DEPARTMENT OF
AGRICULTURE CLASSIFIED ACCORDING TO THE TOTAL NUMBER OF
MALE EMPLOYEES PER FARM**

GEOGRAPHICAL SECTION	AVERAGE NUMBER PER FARM DURING QUARTER	NUMBER OF FARMS					
		1920				1921	1922
		First quarter	Second quarter	Third quarter	Fourth quarter	Second quarter	First quarter
ENTIRE UNITED STATES	None	4,692	3,719	3,278	4,217	3,738	4,564
	Under 1	437	541	701	549	538	483
	1 up to 2	1,620	1,899	1,702	1,595	1,864	1,687
	2 " " 3	666	935	973	734	913	648
	3 " " 4	261	378	470	347	374	284
	4 " " 6	271	372	533	363	411	253
	6 " " 10	147	205	319	233	208	165
	10 and over	120	160	233	169	162	120
	Total	8,214	8,209	8,209	8,207	8,208	8,204
NEW ENGLAND	None	326	226	166	277	210	296
	Under 1	41	60	82	51	56	53
	1 up to 2	187	188	168	173	188	195
	2 " " 3	84	113	117	84	115	81
	3 " " 4	37	56	69	50	59	42
	4 " " 6	41	52	67	53	61	41
	6 " " 10	14	25	43	29	26	21
	10 and over	11	20	29	24	25	12
	Total	741	740	741	741	740	741
MIDDLE ATLANTIC	None	274	198	153	211	192	247
	Under 1	24	34	52	41	27	27
	1 up to 2	138	160	139	149	161	159
	2 " " 3	53	68	87	59	72	55
	3 " " 4	13	30	29	26	36	18
	4 " " 6	19	24	42	21	24	12
	6 " " 10	5	9	15	14	11	7
	10 and over	6	8	15	10	8	7
	Total	532	531	532	531	531	532
EAST NORTH CENTRAL	None	901	695	602	797	690	890
	Under 1	66	83	110	91	91	83
	1 up to 2	335	432	395	356	429	344
	2 " " 3	100	151	179	119	144	86
	3 " " 4	32	47	82	40	50	36
	4 " " 6	14	32	54	35	40	13
	6 " " 10	6	11	24	11	10	2
	10 and over	1	4	8	3	2	1
	Total	1,455	1,455	1,454	1,452	1,456	1,455
WEST NORTH CENTRAL	None	1,182	897	699	1,011	926	1,175
	Under 1	92	114	185	133	113	93
	1 up to 2	381	497	444	394	473	385
	2 " " 3	89	176	207	136	168	88
	3 " " 4	31	61	100	60	59	26
	4 " " 6	19	43	94	45	42	22
	6 " " 10	9	12	44	19	19	12
	10 and over	7	11	36	12	10	6
	Total	1,810	1,811	1,809	1,810	1,810	1,807

TABLE XI—(CONT.)

**FARMS OF CROP REPORTERS FOR THE UNITED STATES DEPARTMENT OF
AGRICULTURE CLASSIFIED ACCORDING TO THE TOTAL NUMBER OF
MALE EMPLOYEES PER FARM**

GEOGRAPHICAL SECTION	AVERAGE NUMBER PER FARM DURING QUARTER	NUMBER OF FARMS					
		1920				1921	1922
		First quarter	Second quarter	Third quarter	Fourth quarter	Second quarter	First quarter
SOUTH ATLANTIC	None	413	364	364	395	363	395
	Under 1	72	70	73	76	68	69
	1 up to 2	160	171	177	154	169	171
	2 " " 3	101	120	101	97	123	110
	3 " " 4	44	46	50	53	46	47
	4 " " 6	62	72	68	64	74	55
	6 " " 10	41	49	62	56	51	50
	10 and over	46	45	44	43	43	40
	Total	939	937	939	938	937	937
EAST SOUTH CENTRAL	None	540	473	505	540	476	516
	Under 1	65	64	57	71	61	61
	1 up to 2	160	177	157	135	174	168
	2 " " 3	112	122	109	111	124	121
	3 " " 4	44	56	54	46	53	47
	4 " " 6	60	72	76	62	74	57
	6 " " 10	31	39	46	42	39	34
	10 and over	20	27	26	24	29	26
	Total	1,032	1,030	1,030	1,031	1,030	1,030
WEST SOUTH CENTRAL	None	546	481	497	527	496	537
	Under 1	36	53	58	40	50	46
	1 up to 2	121	113	84	91	114	122
	2 " " 3	63	83	74	73	82	61
	3 " " 4	34	44	33	37	36	35
	4 " " 6	30	42	59	38	45	29
	6 " " 10	28	36	41	38	33	25
	10 and over	15	21	27	29	17	16
	Total	873	873	873	873	873	871
MOUNTAIN	None	356	254	193	307	252	336
	Under 1	20	38	57	34	43	34
	1 up to 2	72	102	90	88	97	80
	2 " " 3	31	61	59	29	51	23
	3 " " 4	14	18	29	17	19	17
	4 " " 6	8	18	38	13	27	11
	6 " " 10	3	10	21	10	9	3
	10 and over	4	7	20	9	9	3
	Total	508	508	507	507	507	507
PACIFIC	None	154	131	99	152	133	172
	Under 1	21	25	27	12	29	17
	1 up to 2	66	59	48	55	59	63
	2 " " 3	33	41	40	26	34	23
	3 " " 4	12	20	24	18	16	16
	4 " " 6	18	17	35	32	24	13
	6 " " 10	10	14	23	14	10	11
	10 and over	10	17	28	15	19	9
	Total	324	324	324	324	324	324

TABLE XII

**FARMS OF CROP REPORTERS FOR THE UNITED STATES DEPARTMENT OF
AGRICULTURE CLASSIFIED ACCORDING TO THE NUMBER OF FEMALE
EMPLOYEES HIRED BY THE DAY ON EACH**

GEOGRAPHICAL SECTION	AVERAGE NUMBER PER FARM DURING QUARTER	NUMBER OF FARMS					
		1920				1921	1922
		First quarter	Second quarter	Third quarter	Fourth quarter	Second quarter	First quarter
ENTIRE UNITED STATES	None	7,954	7,757	7,700	7,853	7,771	7,930
	Under 1	71	128	125	97	117	84
	1 up to 2	316	368	398	335	375	321
	2 " " 3	57	96	89	76	94	64
	3 " " 4	22	34	38	28	32	26
	4 " " 6	28	41	54	37	38	25
	6 " " 10	15	22	32	21	25	11
	10 and over	14	31	41	30	25	16
	Total.....	8,477	8,477	8,477	8,477	8,477	8,477
NEW ENGLAND	None	714	699	692	699	691	713
	Under 1	11	12	8	12	15	13
	1 up to 2	43	49	46	43	56	40
	2 " " 3	2	6	10	6	3	2
	3 " " 4	1	1	3	4	1	2
	4 " " 6	0	4	3	4	4	1
	6 " " 10	0	0	5	3	1	1
	10 and over	2	2	6	2	2	1
	Total.....	773	773	773	773	773	773
MIDDLE ATLANTIC	None	528	513	503	525	514	526
	Under 1	7	12	10	6	10	6
	1 up to 2	25	25	30	28	25	28
	2 " " 3	2	4	5	2	6	2
	3 " " 4	0	2	3	0	2	0
	4 " " 6	1	3	4	0	1	1
	6 " " 10	0	2	4	1	3	0
	10 and over	0	2	4	1	2	0
	Total.....	563	563	563	563	563	563
EAST NORTH CENTRAL	None	1,433	1,413	1,402	1,423	1,409	1,429
	Under 1	5	13	12	9	18	8
	1 up to 2	46	55	62	48	55	45
	2 " " 3	3	5	4	6	4	4
	3 " " 4	1	2	3	2	2	1
	4 " " 6	0	0	3	0	0	0
	6 " " 10	0	0	2	0	0	0
	10 and over	0	0	0	0	0	1
	Total.....	1,488	1,488	1,488	1,488	1,488	1,488
WEST NORTH CENTRAL	None	1,806	1,782	1,764	1,799	1,794	1,810
	Under 1	6	14	19	12	10	8
	1 up to 2	42	53	61	44	49	36
	2 " " 3	3	7	8	3	5	4
	3 " " 4	2	1	1	1	1	2
	4 " " 6	0	1	4	0	1	0
	6 " " 10	0	1	2	0	0	0
	10 and over	1	1	1	1	0	0
	Total.....	1,860	1,860	1,860	1,860	1,860	1,860

TABLE XII—(CONT.)

FARMS OF CROP REPORTERS FOR THE UNITED STATES DEPARTMENT OF AGRICULTURE CLASSIFIED ACCORDING TO THE NUMBER OF FEMALE EMPLOYEES HIRED BY THE DAY ON EACH

GEOGRAPHICAL SECTION	AVERAGE NUMBER PER FARM DURING QUARTER	NUMBER OF FARMS					
		1920				1921	1922
		First quarter	Second quarter	Third quarter	Fourth quarter	Second quarter	First quarter
SOUTH ATLANTIC	None	824	783	789	812	792	829
	Under 1	22	38	31	30	32	20
	1 up to 2	56	64	68	56	60	56
	2 " " 3	18	21	18	19	23	17
	3 " " 4	9	15	12	8	13	11
	4 " " 6	11	15	16	11	14	11
	6 " " 10	9	7	7	8	12	5
	10 and over	6	12	14	11	9	6
	Total.....	955	955	955	955	955	955
EAST SOUTH CENTRAL	None	954	918	930	941	919	944
	Under 1	14	20	16	13	17	14
	1 up to 2	63	65	68	63	71	67
	2 " " 3	19	34	23	25	31	23
	3 " " 4	6	10	8	7	12	7
	4 " " 6	8	11	13	12	9	7
	6 " " 10	3	5	5	4	5	3
	10 and over	4	8	8	6	7	6
	Total.....	1,071	1,071	1,071	1,071	1,071	1,071
WEST SOUTH CENTRAL	None	874	843	845	850	846	870
	Under 1	3	16	16	12	12	6
	1 up to 2	22	27	25	25	30	24
	2 " " 3	8	14	11	11	15	8
	3 " " 4	1	1	4	4	1	3
	4 " " 6	7	6	8	7	7	4
	6 " " 10	3	6	5	4	4	2
	10 and over	1	6	5	6	4	2
	Total.....	919	919	919	919	919	919
MOUNTAIN	None	504	494	484	497	494	495
	Under 1	2	3	7	3	3	5
	1 up to 2	10	19	20	15	18	16
	2 " " 3	0	0	4	0	2	2
	3 " " 4	2	2	2	1	0	0
	4 " " 6	1	1	1	2	2	1
	6 " " 10	0	0	1	1	0	0
	10 and over	0	0	0	0	.0	0
	Total.....	519	519	519	519	519	519
PACIFIC	None	317	312	291	307	312	314
	Under 1	1	0	6	0	0	4
	1 up to 2	9	11	18	13	11	9
	2 " " 3	2	5	6	4	5	2
	3 " " 4	0	0	2	1	0	0
	4 " " 6	0	0	2	1	0	0
	6 " " 10	0	1	1	0	0	0
	10 and over	0	0	3	3	1	0
	Total.....	329	329	329	329	329	329

TABLE XIII

**FARMS OF CROP REPORTERS FOR THE UNITED STATES DEPARTMENT OF
AGRICULTURE CLASSIFIED ACCORDING TO THE NUMBER OF
FEMALE EMPLOYEES HIRED BY THE WEEK ON EACH**

GEOGRAPHICAL SECTION	AVERAGE NUMBER PER FARM DURING QUARTER	NUMBER OF FARMS					
		1920				1921	1922
		First quarter	Second quarter	Third quarter	Fourth quarter	Second quarter	First quarter
ENTIRE UNITED STATES	None	8,041	7,965	7,929	8,025	7,975	8,034
	Under 1	29	42	49	33	41	39
	1 up to 2	321	358	384	324	356	316
	2 " " 3	42	62	55	46	56	46
	3 " " 4	17	18	20	19	18	14
	4 " " 6	12	15	20	13	15	11
	6 " " 10	7	9	10	9	8	9
	10 and over	8	8	10	8	8	8
	Total.....	8,477	8,477	8,477	8,477	8,477	8,477
NEW ENGLAND	None	706	696	691	700	692	702
	Under 1	2	3	4	1	4	5
	1 up to 2	52	51	52	52	55	50
	2 " " 3	5	14	15	10	12	8
	3 " " 4	2	2	3	2	2	2
	4 " " 6	4	4	4	4	5	4
	6 " " 10	2	2	2	3	2	2
	10 and over	0	1	2	1	1	0
	Total.....	773	773	773	773	773	773
MIDDLE ATLANTIC	None	532	526	518	529	527	531
	Under 1	2	8	5	1	5	3
	1 up to 2	25	24	34	28	26	25
	2 " " 3	2	3	2	2	3	1
	3 " " 4	1	0	0	0	1	2
	4 " " 6	1	2	3	3	1	0
	6 " " 10	0	0	0	0	0	0
	10 and over	0	0	1	0	0	1
	Total.....	563	563	563	563	563	563
EAST NORTH CENTRAL	None	1,429	1,412	1,406	1,425	1,408	1,425
	Under 1	5	4	7	11	3	9
	1 up to 2	50	65	64	47	68	50
	2 " " 3	3	6	9	4	8	3
	3 " " 4	1	1	2	1	1	1
	4 " " 6	0	0	0	0	0	0
	6 " " 10	0	0	0	0	0	0
	10 and over	0	0	0	0	0	0
	Total.....	1,488	1,488	1,488	1,488	1,488	1,488
WEST NORTH CENTRAL	None	1,763	1,741	1,731	1,758	1,757	1,771
	Under 1	7	11	12	9	7	9
	1 up to 2	76	91	98	78	83	66
	2 " " 3	11	10	10	10	8	11
	3 " " 4	2	5	3	4	2	1
	4 " " 6	0	1	3	0	2	1
	6 " " 10	1	1	2	1	1	1
	10 and over	0	0	1	0	0	0
	Total.....	1,860	1,860	1,860	1,860	1,860	1,860

TABLE XIII—(CONT.)

**FARMS OF CROP REPORTERS FOR THE UNITED STATES DEPARTMENT OF
AGRICULTURE CLASSIFIED ACCORDING TO THE NUMBER OF
FEMALE EMPLOYEES HIRED BY THE WEEK ON EACH**

GEOGRAPH- ICAL SECTION	AVERAGE NUMBER PER FARM DURING QUARTER	NUMBER OF FARMS					
		1920				1921	1922
		First quarter	Second quarter	Third quarter	Fourth quarter	Second quarter	First quarter
SOUTH ATLANTIC	None	899	894	891	895	890	893
	Under 1	2	4	8	2	8	4
	1 up to 2	36	39	40	40	40	41
	2 " " 3	7	9	5	7	6	8
	3 " " 4	5	2	3	4	5	3
	4 " " 6	2	2	2	2	1	2
	6 " " 10	1	2	3	2	2	1
	10 and over	3	3	3	3	3	3
	Total	955	955	955	955	955	955
EAST SOUTH CENTRAL	None	1,014	1,010	1,012	1,016	1,010	1,011
	Under 1	5	4	3	3	3	3
	1 up to 2	38	40	42	41	41	39
	2 " " 3	6	8	6	4	10	8
	3 " " 4	2	3	3	2	2	3
	4 " " 6	4	4	4	4	4	4
	6 " " 10	0	1	0	0	0	2
	10 and over	2	1	1	1	1	1
	Total	1,071	1,071	1,071	1,071	1,071	1,071
WEST SOUTH CENTRAL	None	883	880	884	884	882	885
	Under 1	3	3	3	3	3	4
	1 up to 2	17	17	17	15	18	17
	2 " " 3	7	9	5	7	7	5
	3 " " 4	3	4	4	4	3	2
	4 " " 6	0	0	1	0	0	0
	6 " " 10	3	3	3	3	3	3
	10 and over	3	3	2	3	3	3
	Total	919	919	919	919	919	919
MOUNTAIN	None	503	499	491	504	502	504
	Under 1	2	4	5	3	5	2
	1 up to 2	12	12	17	9	9	12
	2 " " 3	0	2	2	1	1	1
	3 " " 4	1	1	2	2	1	0
	4 " " 6	1	1	2	0	1	0
	6 " " 10	0	0	0	0	0	0
	10 and over	0	0	0	0	0	0
	Total	519	519	519	519	519	519
PACIFIC	None	312	307	305	314	307	312
	Under 1	1	1	2	0	3	0
	1 up to 2	15	19	20	14	16	16
	2 " " 3	1	1	1	1	1	1
	3 " " 4	0	0	0	0	1	0
	4 " " 6	0	1	1	0	1	0
	6 " " 10	0	0	0	0	0	0
	10 and over	0	0	0	0	0	0
	Total	329	329	329	329	329	329

CHAPTER III

THE VOLUME OF EMPLOYMENT

While the preceding chapter gives rather complete information concerning the numbers of employees on the pay rolls of various industries, it does not picture accurately the variations taking place in the volume of employment. The reason that it does not do so is that fluctuations occur from time to time in the number of hours worked per week as well as in the number of employees who are drawing pay. In times of depression, some employers, in order to spread work, have all employees work shorter hours, some keep their business in operation only part of the days in the week, and others have part of the force work the first half and part the second half of the week. In each of these instances the number on the pay roll remains unchanged, though evidently the volume of employment varies greatly. As workers produce only when at work and normally are paid only for time when actually so engaged, it is the number of hours worked and not the number of persons whose names appear on the pay roll that measures the volume of employment and hence is of chief significance to students of employment questions.

THE PER CENT OF FULL TIME WORKED BY EMPLOYEES WHILE ON THE PAY ROLLS

That the part of unemployment which arises during a business depression from putting the workers on part time is, however, distinctly smaller than the fraction of total idleness caused by dropping them from the pay rolls is clearly indicated by Tables XIV, XV, XVI, and XVII, which record for the important industrial fields the per cent of full time worked during each quarter by workers who remained on the pay rolls all of the time.

Too much reliance must not be placed upon the absolute sizes of the percentages entered in these tables, for their correctness depends upon the accuracy of two distinct quantities: first, the number of employee hours actually worked; and, second, the number of full-time employee hours for these plants. The first quantity is something definite, which, when the needed data are available, can be measured with precision. The second is perforce based upon opinions and hence is liable to error from subjective causes.

At first thought it seems easy enough to define "full-time" hours, but

reflection brings the conviction that every definition is necessarily arbitrary. When, for example, a plant that ordinarily runs 48 hours a week reduces its time of operation to 36 hours a week in order to keep from discharging employees, no one can know positively that the 48-hour week will ever be resumed. When to this impossibility of foreknowledge is added the fact that a considerable number of the employers who furnished the information upon which these tables are based failed to interpret the question on the schedule in the manner expected, it follows that every estimate of "the per cent of full time actually worked" must be viewed with more or less suspicion.

It is probable, however, that the recorded *changes* in the percentages are more reliable than the absolute sizes of the percentages themselves. When, therefore, one industry shows a much larger change than another, the chances are that it represents a real and not merely a fictitious difference in the degree of variation in employment.

Table XIV indicates that the maximum change occurred in the case of steam railway employees. The fact should be noted, however, that the figures show that during the boom, the railway workers put in much overtime so that, even at the lowest point of the depression, they were working 94.2 per cent of full time.

The decline recorded for the metal products factories is next in magnitude. During the depression their employees lost about one-eighth of their nominal full time. In mines and construction work and in textile and lumber products factories, the decline was not very great, but the percentage of full time worked is lower throughout than in most other fields.

Table XV indicates that of enterprises employing fewer than 21 employees each the only ones that resorted to part-time employment to a marked extent were those engaged in mining, construction work, or the manufacture of textiles and clothing. The unusually low percentage of employment reported for mines of this size presumably is not very significant as the record is based upon an inadequate sample. However, there is a possibility that it pictures the facts correctly for, according to Table XVI, the same phenomenon occurred in mines of the next larger size. In mines having from 21 to 100 men, part-time work is shown to have been more prevalent than in those that employed over 100 workers each.

The same relationship held for the position of the smaller as compared with the larger metal working factories. In fact, the general indications of Tables XVI and XVII are that the device of part-time work has been used just as extensively by concerns employing from 21 to 100 workers as by those conducting operations on a larger scale.

If the records obtained from employers are representative, the conclusion seems to be justified for all but a few industries that part-time work, while

TABLE XIV

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE PER CENT OF FULL TIME WORKED BY THE AVERAGE EMPLOYEE WHILE ON THE PAY ROLL IN ENTERPRISES OF ALL SIZES

INDUSTRY	PER CENT OF FULL TIME WORKED								DECLINE FROM HIGHEST TO LOWEST RECORDED	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	98.5	97.5	98.0	97.4	95.3	95.8	95.8	96.4	96.2	3.2
Agriculture.....	95.1	93.2	96.9	98.9	92.4	95.1	97.4	99.6	94.1	6.5
Extraction of Minerals.....	94.3	93.1	95.1	94.8	90.7	90.2	88.4	92.8	93.4	6.7
Building and Construction.....	94.1	94.6	94.6	94.9	92.9	94.3	94.4	94.5	102.1	2.0
Other Hand Trades.....	96.9	98.3	97.1	97.6	95.8	97.7	97.2	97.0	96.2	2.5
Finance.....	99.5	100.1	100.1	99.3	99.4	99.5	99.7	99.4	99.5	1.2
Public and Professional Service.....	100.6	100.1	100.0	100.3	101.4	100.3	99.9	99.9	100.5	1.5
Domestic and Personal Service.....	98.2	97.8	97.9	98.5	97.8	98.0	97.9	97.9	97.9	1.5
All Transportation.....	103.6	103.8	105.7	103.1	98.6	99.7	99.0	99.0	95.9	9.8
Steam Railways.....	106.8	107.4	109.9	105.6	99.0	100.4	99.5	99.1	94.2	15.7
Other Transportation.....	98.2	98.1	98.7	99.3	97.9	98.9	98.5	98.8	98.1	1.4
Commerce and Trade.....	97.9	98.1	98.1	98.7	98.1	98.1	97.7	98.7	98.2	1.0
Wholesale.....	98.9	99.0	99.0	100.3	99.9	99.4	98.6	99.0	98.8	1.7
Retail.....	97.8	97.9	98.0	98.5	97.9	97.9	97.6	98.7	98.1	0.9
All Factories.....	98.1	96.3	96.2	94.4	91.6	92.3	92.2	93.3	93.3	6.5
Food, Drink, and Tobacco.....	97.4	97.9	95.8	96.3	97.6	98.1	95.7	96.8	96.6	2.4
Lumber and Its Products.....	94.7	94.9	95.6	95.0	94.0	94.7	95.2	95.5	92.5	1.6
Metals and Metal Products ^a	99.7	96.0	96.6	93.9	88.5	87.0	87.0	88.5	92.5	12.7
Paper and Printing.....	98.7	98.6	98.0	98.5	96.8	95.9	95.8	98.2	95.7	3.0
Mineral Products ^b	98.4	99.0	98.5	97.4	94.1	96.0	95.6	96.4	95.2	4.9
Textile and Leather Products ^c	96.0	95.4	94.3	91.6	91.3	94.7	94.4	94.9	91.0	5.0

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.

TABLE XV

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE PER CENT OF FULL TIME WORKED BY THE AVERAGE
EMPLOYEE WHILE ON THE PAY ROLL IN ALL ENTERPRISES HAVING FEWER THAN 21^c EMPLOYEES

INDUSTRY	PER CENT OF FULL TIME WORKED								MAXIMUM CYCLICAL DECLINE
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries	97.8	97.5	97.9	98.9	97.5	97.6	97.8	98.3	97.5
Agriculture	95.2	94.5	97.5	99.8	92.7	95.5	97.7	100.2	93.7
Extraction of Minerals	71.5	71.7	71.9	71.1	71.1	79.9	78.6	74.8	70.2
Building and Construction	91.1	93.0	93.4	91.7	89.8	92.2	94.2	92.0	92.5
Other Hand Trades	98.3	98.4	98.0	98.1	96.8	97.9	97.8	97.7	97.4
Finance	101.3	101.1	101.4	100.6	101.6	101.0	101.6	100.8	101.1
Public and Professional Service	101.4	101.1	100.7	101.2	103.1	100.9	100.0	100.5	100.9
Domestic and Personal Service	97.7	97.4	97.1	99.1	97.2	97.4	97.3	96.2	97.4
All Transportation	99.1	98.2	99.4	100.5	98.1	98.7	98.4	99.5	98.2
Steam Railways	99.1	98.2	99.4	100.5	98.1	98.7	98.4	99.5	98.2
Other Transportation	98.0	98.4	98.4	99.2	98.8	98.7	98.1	99.7	98.8
Commerce and Trade	98.2	98.8	98.5	98.9	98.9	98.8	98.9	99.4	98.6
Wholesale	98.0	98.4	98.4	99.2	98.8	98.7	98.1	99.7	98.8
Retail	98.2	97.8	97.8	97.1	97.5	97.5	97.9	97.6	97.5
All Factories	98.6	98.7	95.7	97.1	97.0	98.8	95.8	97.0	97.0
Food, Drink, and Tobacco	96.1	96.9	97.0	97.1	97.2	97.1	97.5	97.8	97.3
Lumber and Its Products	99.6	101.2	100.1	97.9	98.9	102.3	101.7	99.3	98.3
Metals and Metal Products	99.1	99.3	98.4	96.6	97.4	96.2	98.5	99.3	97.4
Paper and Printing	99.7	99.7	100.6	101.8	100.3	99.1	99.6	99.8	97.6
Mineral Products ^a	101.7	93.4	99.8	91.3	94.4	92.6	98.3	90.9	98.1
Textile and Leather Products ^a									

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Increase—Minimum for corresponding quarters.

^e Enterprises are classified on the basis of the number of persons employed in the first quarter of 1920.

TABLE XVI

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE PER CENT OF FULL TIME WORKED BY THE AVERAGE
EMPLOYEE WHILE ON THE PAY ROLL IN ALL ENTERPRISES HAVING 21 TO 100^d EMPLOYEES

INDUSTRY	PER CENT OF FULL TIME WORKED								MAXIMUM CYCLICAL DECLINE
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries.....	96.5	93.3	93.4	95.0	94.8	95.7	94.8	95.8	3.2
Agriculture.....	96.8	83.5	94.9	96.5	93.3	91.3	95.8	97.5	3.5
Extraction of Minerals.....	88.7	80.1	86.4	92.8	84.4	80.8	68.5	93.8	17.9
Building and Construction.....	96.2	96.5	96.3	97.5	95.1	96.1	95.1	96.6	1.2
Other Hand Trades.....	96.8	96.8	96.3	96.6	96.3	95.6	95.5	94.3	3.0
Finance.....	100.9	100.8	99.8	99.7	98.2	98.1	98.1	98.0	2.8
Public and Professional Service.....	99.1	98.1	97.2	97.7	97.9	99.1	99.4	97.2	1.9
Domestic and Personal Service.....	99.0	98.2	98.7	98.9	98.7	99.1	98.8	98.5	0.5
All Transportation.....	96.3	96.5	97.4	98.4	98.1	97.9	97.7	98.3	1.0
Steam Railways.....	96.3	96.5	97.4	98.4	98.1	97.9	97.7	98.3	1.0
Other Transportation.....	97.5	95.1	95.4	97.4	95.8	95.6	95.3	95.6	1.8
Commerce and Trade.....	99.2	98.7	99.0	102.1	101.5	101.1	98.3	98.9	3.8
Wholesale.....	97.0	94.0	94.2	96.1	94.1	94.0	94.3	94.7	2.9
Retail.....	95.1	90.3	89.2	91.1	92.4	94.6	93.7	93.8	5.9
All Factories.....	97.7	97.7	92.8	93.4	97.9	98.3	91.0	94.9	1.8
Food, Drink, and Tobacco.....	91.5	91.1	93.3	92.3	91.2	91.4	92.5	93.7	0.8
Lumber and Its Products.....	94.3	70.3	71.6	79.1	82.1	87.0	90.8	84.2	24.0 ^a
Metals and Metal Products ^a	97.1	96.2	94.4	98.0	96.4	95.3	94.3	100.1	0.9
Paper and Printing.....	97.3	99.0	99.0	97.2	96.9	98.4	98.1	97.4	1.9
Mineral Products ^b	94.5	96.5	93.5	92.3	92.4	95.6	94.5	93.4	4.4
Textile and Leather Products ^c									

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here. The large variations are due to enormous fluctuations in a single plant—not representative.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Enterprises are classified on the basis of the number employed in the first quarter of 1920.

EMPLOYMENT HOURS AND EARNINGS

TABLE XVII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE PER CENT OF FULL TIME WORKED BY THE AVERAGE EMPLOYEE WHILE ON THE PAY ROLL IN ALL ENTERPRISES HAVING OVER 100^d EMPLOYEES

INDUSTRY	PER CENT OF FULL TIME WORKED								MAXIMUM CYCLICAL DECLINE	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	99.6	99.0	99.6	97.2	93.7	94.3	94.2	95.1	95.4	5.9
Agriculture.....	92.5	78.9	74.5	73.6	80.2	87.7	84.2	81.3	88.3	12.3
Extraction of Minerals.....	96.6	96.3	97.6	96.5	93.1	93.3	94.0	94.3	95.4	3.6
Building and Construction.....	95.5	94.5	94.1	96.4	93.9	94.8	93.8	95.7	96.6	2.6
Other Hand Trades.....	93.3	100.0	95.9	97.4	92.6	100.0	98.2	99.1	96.4	0.7
Finance.....	96.8	98.7	98.9	97.5	97.6	98.6	98.3	98.6	98.5	0.6
Public and Professional Service.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0
Domestic and Personal Service.....	99.8	99.7	101.7	93.8	99.9	99.7	99.7	99.7	99.6	7.9
All Transportation.....	105.0	105.4	107.5	104.1	98.7	100.1	99.3	99.0	95.3	8.2
Steam Railways.....	106.8	107.4	109.9	105.6	99.0	100.4	99.5	99.1	94.2	10.4
Other Transportation.....	98.4	98.7	98.6	98.5	97.6	99.4	98.8	98.4	98.3	0.8
Commerce and Trade.....	97.9	99.0	99.0	97.8	97.8	97.8	98.2	97.9	98.2	1.2
Wholesale.....	99.0	99.2	99.2	99.5	99.1	98.7	98.6	99.0	99.0	0.6
Retail.....	97.5	98.8	98.9	97.2	97.3	97.4	98.0	97.5	97.9	1.4
All Factories.....	98.7	97.5	97.7	94.7	90.3	90.5	90.5	92.2	92.6	8.4
Food, Drink, and Tobacco.....	96.7	97.6	97.6	97.8	97.8	97.6	98.8	98.0	96.0	1.8
Lumber and Its Products.....	95.5	95.9	95.8	94.2	91.6	93.8	94.1	94.1	95.2	4.3
Metals and Metal Products ^a	100.0	98.1	99.0	95.1	88.7	86.5	86.1	88.4	92.6	13.9
Paper and Printing.....	99.5	99.5	99.9	99.8	96.7	96.0	94.9	96.2	94.1	5.8
Mineral Products ^b	98.6	98.9	97.7	96.1	90.6	93.5	92.4	94.5	94.4	8.3
Textile and Leather Products ^c	96.0	95.2	94.2	91.5	90.8	94.6	94.0	95.6	90.7	5.3

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Enterprises are classified on the basis of the number of persons employed in the first quarter of 1920.

more prevalent in time of depression than when the boom is on, is, nevertheless, not commonly resorted to by most employers. The minimum per cent of full time reached by the reported totals for all industries is 95.3, a figure which indicates a surprisingly small amount of part-time work. Employers in general evidently believe it advantageous to lay off some of their employees rather than to keep everyone occupied for a smaller number of hours per week.

THE ACTUAL VOLUME OF EMPLOYMENT AS SHOWN BY REPORTS FROM EMPLOYERS

The next logical step is to ascertain what the records furnished by employers show concerning changes in the actual volume of employment in the United States. Tables XVIII, XIX, XX, and XXI bring out the facts in this regard. These tables, like those pertaining to the numbers on the pay rolls, contain estimates for all enterprises in the United States and not merely records for the sample plants reporting. These estimates were obtained by weighting the samples from the respective fields in proportion to the estimated numbers of employees working in each on March 31, 1920. Such estimates give the best picture of the volume of employment in the United States which can be obtained from the data collected during this investigation. So far as the writer is aware, this constitutes the first serious effort to measure the total volume of employment in any country. It represents an initial attempt to portray the actual changes in employment conditions brought about by the business cycle. It is hoped that this beginning may lead to more accurate studies of the same kind in the future.

The estimates recorded in Tables XVIII to XXI indicate that, at the crest of the boom in 1920, establishments employing over 100 persons utilized nearly half of all the time worked by all employees in the United States. By the third quarter of 1922 this proportion had fallen to slightly over two-fifths. At the beginning of 1920 these large scale undertakings gave 50 per cent more employment than did the small enterprises having fewer than 21 employees. In the third quarter of 1921, however, the small enterprises were requiring more hours of work than did the large ones. The medium-sized undertakings, keeping from 21 to 100 workers, utilized about one-seventh of the entire volume of employment in 1920 and approximately one-sixth of it in 1921.

According to Table XVIII, the cyclical decline in business activity caused total employment in the United States to fall off by just about one-sixth. Workers in factories producing metals and metal products suffered most severely from the depression, employment in that field shrinking by more than one-half. Mines and railways each underwent a diminution of about three-tenths in the volume of work done. Factory owners in general

reduced the extent of their operations by from one-tenth to one-fifth. While the miscellaneous hand trades alone show quite as great activity in 1921 as in 1920, the cyclical decline in agricultural and retail mercantile operations was negligible. Public, domestic and personal service showed no striking change throughout the recorded period.

The fact is worthy of note that not every industry reached its lowest point of employment at the same date. Building and construction, and factories working in wood, textiles, and leather, struck bottom in the first quarter of 1921. Manufacturers of food, drink, and tobacco employed the fewest workers in the second quarter of 1921. Producers of metals, minerals, or paper, and their products reached the lowest stage of employment in the third quarter of 1921; while the industries of mining, finance, transportation, and merchandising employed fewer persons in the first quarter of 1922 than in any of the previous periods.

Table XIX shows how strikingly different from the general average was the steadiness of employment characterizing those small enterprises having fewer than 21 workers. While, for industry as a whole, the cycle caused employment to fall off by one-sixth, the total of this class escaped with a reduction of only some three per cent. Factories engaged in wood, metal, textile, or leather working were affected most severely, lowering their volume of employment by about one-sixth—but this is only a slightly larger reduction than the average for all plants of all classes. Building and construction employment underwent a reduction of about one-seventh, but most of the remaining industries show declines of less than ten per cent. Small mining, financial, and mercantile enterprises and paper and printing establishments were nearly as active in 1921 as in 1920.

On the average, concerns employing from 21 to 100 workers suffered from the depression about four times as severely as did the group of smallest-sized plants. Though, as a whole, they reduced their volume of employment by only about one-seventh, metal working plants had a diminution in this item of over one-half and mines of two-fifths. Most industries cut total hours worked from four to twenty per cent, financial institutions alone showing no reduction in the volume of employment.

Though, as just stated, concerns having 21 to 100 employees in the first quarter of 1920 had four times as much falling off in employment as did the very small enterprises, the larger scale plants were affected still more severely, showing a proportional reduction more than twice as great as that occurring in the medium-sized establishments. If the measurement is made in absolute amounts, the contrast is even more striking, for the cyclical shrinkage in the total employee hours worked in the large scale enterprises was approximately two and a half billions, in contrast with a loss of less than half a billion in the medium-sized plants and only a fifth of a

TABLE XVIII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL HOURS ACTUALLY WORKED PER QUARTER
BY ALL EMPLOYEES IN ENTERPRISES OF ALL SIZES

INDUSTRY	MILLIONS OF HOURS WORKED PER QUARTER								MAXIMUM CYCLICAL DECLINE (Per Cent)
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries.....	17,747	18,395	19,063	17,611	15,515	15,548	15,918	15,655	15,180
Agriculture.....	911	1,265	1,603	1,148	882	1,250	1,552	1,112	898
Extraction of Minerals.....	648	654	698	672	590	549	534	509	491
Building and Construction.....	702	851	914	751	619	690	805	796	751
Other Hand Trades.....	353	377	357	370	355	379	367	370	361
Finance.....	231	234	238	234	235	225	224	221	221
Public and Professional Service.....	1,961	1,928	1,922	1,905	1,952	1,841	1,834	1,939	2,032
Domestic and Personal Service.....	1,956	1,991	2,037	2,019	1,973	1,985	2,022	1,936	1,920
All Transportation.....	2,104	2,163	2,323	2,231	1,800	1,755	1,824	1,866	1,639
Steam Railways.....	1,359	1,374	1,513	1,388	1,068	1,004	1,064	1,080	936
Other Transportation.....	745	789	810	842	731	750	759	785	703
Commerce and Trade.....	1,733	1,772	1,762	1,799	1,698	1,723	1,707	1,749	1,671
Wholesale.....	185	197	195	186	178	187	184	176	171
Retail.....	1,548	1,574	1,566	1,612	1,519	1,535	1,523	1,573	1,500
All Factories.....	7,143	7,154	7,204	6,478	5,406	5,148	5,045	5,152	5,191
Food, Drink, and Tobacco.....	678	664	740	710	573	564	628	627	557
Lumber and Its Products.....	648	704	699	591	530	608	594	551	555
Metals and Metal Products ^a	3,375	3,331	3,354	2,933	2,244	1,857	1,679	1,736	1,954
Paper and Printing.....	396	394	394	412	375	359	352	379	368
Mineral Products ^b	565	571	583	570	492	474	474	488	477
Textile and Leather Products ^c	1,479	1,488	1,431	1,240	1,189	1,284	1,315	1,368	1,277

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

EMPLOYMENT HOURS AND EARNINGS

TABLE XIX

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL HOURS ACTUALLY WORKED PER QUARTER
BY ALL EMPLOYEES IN ALL ENTERPRISES HAVING FEWER THAN 21^c EMPLOYEES

INDUSTRY	MILLIONS OF HOURS WORKED PER QUARTER								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	5,895	6,464	6,956	6,310	5,773	6,277	6,742	6,161	5,872	3.08
Agriculture.....	818	1,147	1,488	1,044	783	1,149	1,456	1,018	812	4.28
Extraction of Minerals.....	22	23	23	22	22	36	38	29	23	0.00
Building and Construction.....	249	307	335	296	225	262	320	317	286	14.66
Other Hand Trades.....	181	197	186	190	180	193	184	186	185	2.11
Finance.....	92	93	94	94	96	96	97	96	96	0.00
Public and Professional Service ^a	1,085	1,079	1,089	988	1,035	970	994	995	1,091	10.93
Domestic and Personal Service.....	1,292	1,339	1,399	1,370	1,324	1,344	1,403	1,296	1,285	5.40
All Transportation.....	258	275	277	323	248	266	269	311	242	3.72
Steam Railways.....	258	275	277	323	248	266	269	311	242	3.72
Other Transportation.....	1,136	1,162	1,165	1,180	1,140	1,158	1,153	1,165	1,128	1.27
Commerce and Trade.....	32	32	32	33	32	33	32	33	32	0.00
Wholesale.....	1,104	1,130	1,133	1,147	1,108	1,126	1,121	1,132	1,096	1.31
Retail.....	762	842	901	803	718	802	827	748	725	8.21
All Factories.....	153	171	206	183	151	164	194	172	157	5.83
Food, Drink, and Tobacco.....	294	328	325	272	246	301	272	232	235	16.31
Lumber and Its Products.....	64	75	95	79	69	66	78	69	64	17.89
Metals and Metal Products ^a	104	107	104	111	112	110	110	119	111	1.79
Paper and Printing.....	75	82	88	94	81	85	89	89	85	5.32
Mineral Products ^b	71	78	83	64	59	76	82	66	73	16.90
Textile and Leather Products ^c										

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Based upon a sample too small to be dependable.^e Enterprises are classified upon the basis of the number employed in the first quarter of 1920.

TABLE XX

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL HOURS ACTUALLY WORKED PER QUARTER
BY ALL EMPLOYEES IN ALL ENTERPRISES HAVING 21 TO 100^d EMPLOYEES

INDUSTRY	MILLIONS OF HOURS WORKED PER QUARTER								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	2,734	2,854	2,926	2,851	2,653	2,629	2,588	2,627	2,521	13.84
Agriculture.....	76	98	88	81	78	81	76	77	79	17.35
Extraction of Minerals.....	87	72	82	92	85	83	71	58	54	41.31
Building and Construction.....	225	271	311	284	273	261	264	254	229	15.11
Other Hand Trades.....	107	104	102	107	105	107	106	107	102	4.67
Finance.....	56	57	59	60	60	60	60	61	60	0.00
Public and Professional Service.....	261	255	263	252	240	245	258	249	234	11.03
Domestic and Personal Service.....	469	454	435	445	448	442	421	444	440	4.48
All Transportation.....	139	149	157	153	140	140	144	138	135	9.80
Steam Railways.....	139	149	157	153	140	140	144	138	135	9.80
Other Transportation.....	259	258	258	265	249	248	243	251	240	5.81
Commerce and Trade.....	63	63	65	64	61	60	59	58	57	12.31
Wholesale.....	196	195	193	201	188	188	184	193	183	4.66
Retail.....	1,054	1,135	1,171	1,112	974	962	946	989	948	19.21
All Factories.....	167	169	188	200	154	154	162	178	149	13.83
Food, Drink, and Tobacco.....	174	199	197	156	141	156	165	157	158	21.61
Lumber and Its Products.....	147	191	215	193	149	111	103	114	129	52.10
Metals and Metal Products ..	105	104	102	111	98	92	91	105	98	11.54
Paper and Printing.....	167	165	169	172	159	155	156	165	157	7.69
Mineral Products.....	294	307	300	281	273	294	269	270	255	10.33
Textile and Leather Products ..										

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Enterprises are classified upon the basis of the number employed in the first quarter of 1920.

TABLE XXI

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL HOURS ACTUALLY WORKED PER QUARTER
BY ALL EMPLOYEES IN ALL ENTERPRISES HAVING OVER 100^f EMPLOYEES**

INDUSTRY	MILLIONS OF HOURS WORKED PER QUARTER								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	9,119	9,077	9,181	8,451	7,090	6,643	6,589	6,867	6,787	28.23
Agriculture.....	17	21	27	23	22	20	20	17	8	25.93 ^e
Extraction of Minerals.....	539	559	593	558	482	430	426	422	414	30.18
Building and Construction.....	228	273	269	170	121	168	221	226	236	46.93
Other Hand Trades.....	65	76	70	74	71	80	78	78	75	5.00 ^d
Finance.....	84	85	86	81	80	69	68	64	66	25.58
Public and Professional Service.....	615	594	570	666	677	627	583	696	708	2.23 ^d
Domestic and Personal Service.....	196	199	204	204	202	199	198	197	196	3.92
All Transportation.....	1,708	1,740	1,889	1,756	1,412	1,349	1,411	1,417	1,262	33.19
Steam Railways.....	1,359	1,374	1,514	1,389	1,069	1,005	1,065	1,081	936	38.18
Other Transportation.....	349	366	376	367	343	344	347	337	326	8.17
Commerce and Trade.....	339	352	340	355	309	317	312	334	303	9.94
Wholesale.....	91	103	99	90	86	95	94	85	82	7.77
Retail.....	248	249	241	265	224	222	218	249	221	10.84
All Factories.....	5,327	5,178	5,133	4,563	3,714	3,384	3,273	3,415	3,519	38.56
Food, Drink, and Tobacco.....	359	325	347	328	269	246	273	277	252	25.07
Lumber and Its Products.....	179	178	177	164	143	151	157	163	162	20.11
Metals and Metal Products ^a	3,164	3,065	3,045	2,681	2,026	1,680	1,498	1,554	1,761	52.65
Paper and Printing.....	187	184	188	191	165	157	152	156	160	20.42
Mineral Products ^b	324	324	326	304	253	235	230	234	235	29.41
Textile and Leather Products ^c	1,114	1,103	1,049	895	858	915	965	1,032	949	22.98

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Increase—minimum for corresponding quarters.

^e Third quarters compared—first quarter of 1922 not believed to be typical.

^f Enterprises are classified upon the basis of the numbers employed in the first quarter of 1920.

billion for the smallest-sized enterprises. Such a marked difference seems to demonstrate conclusively that, in this depression, unemployment was primarily a phenomenon connected with undertakings of considerable size. This conclusion is corroborated by Table XXI, which indicates that, in eleven out of seventeen industries, those enterprises employing over 100 persons reduced by more than one-fifth the volume of employment given, while in only three industrial groups, namely, public and professional service and the miscellaneous hand trades, did concerns of this class record negligible cyclical declines in employment.

A pertinent question is whether or not the heavy declines in employment shown for the larger plants were distributed somewhat evenly over the United States or whether they were concentrated in certain sections. Although lack of space prevents the publication here of many of the details, separate tables have been made for three sections of the United States. For the sake of brevity, the Rocky Mountain and Pacific Coast regions will hereafter be referred to as the West, the region south of the Potomac and the Ohio rivers and running west to the New Mexico line will be designated as the South, and the remainder of the country will be called the Northeast.

The figures for large-sized enterprises in agriculture are based upon too few establishments to give one much confidence that they are representative; hence sectional differences are not worth noting. The falling off in employment in mines was almost equally marked in the West, the South, and the Northeast. No reports were received from the South or West from large concerns engaged in construction work, hence the record given probably represents mainly the situation in the Northeast, though some of the work may have been done elsewhere. Large financial institutions in the Mountain and Pacific division showed an increase rather than a decline in activity, but the South suffered from the depression nearly as severely as did the Northeast. The records for steam railways could not be classified according to geographical divisions. The business of wholesale dealers held up better in the South than in the other parts of the country, but, in retail trades, that section appears to have fared no better than did the rest of the nation. Large-scale lumber production was hit hardest in the South and showed the least effect of the depression in the West. The same may be said of large establishments producing textiles, leather goods, and clothing. Factories producing chemical and mineral products suffered most in the South and least in the Northeast. Records for the larger paper mills and printing establishments that reported show that in the South there was a gain in 1921 over 1920, but that, in the Northeast, there was a moderate decline. No reports were received from the West. The data gathered indicate that the falling off in employment in factories engaged in producing food, drink, tobacco, metals and metal products, vehicles, and

miscellaneous articles was approximately uniform through the United States.

Table XXII and Charts 1, 2, and 3 summarize the data showing the absolute changes in the volume of employment occurring between the peak and the trough of the cycle. In the diagrams presented, the left hand bar of each pair represents total employment at the peak and the right hand bar the same at the trough. The hollow bars show the totals for nominal full-time hours. Their length is affected mainly by changes in the numbers on the pay-rolls. The solid black bars on the contrary represent hours actually worked. The difference between the hollow and the solid bar represents the amount of work gained through over-time or lost through part-time work.

TABLE XXII

A COMPARISON OF THE VOLUME OF EMPLOYMENT AT THE PEAK AND IN THE TROUGH FOR LEADING INDUSTRIAL GROUPS

INDUSTRY	EMPLOYEES PER CONCERN	FULL TIME HOURS (Millions)			HOURS ACTUALLY WORKED (Millions)		
		Peak	Trough	Per Cent Decline	Peak	Trough	Per Cent Decline
ALL INDUSTRIES	0- 20	7,105	6,892	3.00	6,956	6,742	3.08
	21-100	3,132	2,640	15.71	2,926	2,521	13.84
	Over 100	9,215	6,997	24.07	9,181	6,589	28.23
AGRICULTURE	0- 20	1,526	1,491	2.29	1,488	1,456	2.15 ^a
	21-100	117	89	23.93	98	81	17.35
	Over 100	36	24	33.33	27	20	25.93
EXTRACTION OF MINERALS	0- 20	32	33	3.13 ^b	23	23	0.00
	21-100	99	59	40.40	92	54	41.31
	Over 100	608	434	28.62	593	414	30.18
FACTORIES	0- 20	922	844	8.46	901	827	8.21
	21-100	1,313	1,010	23.07	1,171	946	19.21
	Over 100	5,400	3,617	33.02	5,327	3,273	38.56
BUILDING AND CONSTRUCTION	0- 20	330	284	13.94	307	262	14.66
	21-100	322	278	13.66	311	264	15.11
	Over 100	289	177	38.75	228	121	46.93
TRANSPORTATION	0- 20	321	312	2.80	323	311	3.72
	21-100	156	140	10.26	153	138	9.80
	Over 100	1,758	1,324	24.69	1,889	1,262	33.19
COMMERCE AND TRADE	0- 20	1,189	1,169	1.68	1,180	1,165	1.27
	21-100	270	255	5.56	258	243	5.81
	Over 100	355	324	8.73	352	317	9.94
ALL OTHER INDUSTRIES	0- 20	2,804	2,624	6.42	2,767	2,573	7.01
	21-100	904	851	5.86	894	836	6.49
	Over 100	1,049	929	11.44	1,045	926	11.39

^a Based upon the third quarters—the periods between which the proportionate change in the number of employees was greatest.

^b Increase—minimum for corresponding quarters.

Chart 1

DIFFERENCES IN THE TOTAL HOURS OF EMPLOYMENT GIVEN QUARTERLY AT THE PEAK AND AT THE TROUGH OF THE BUSINESS CYCLE BY ENTERPRISES EMPLOYING FEWER THAN 21 PERSONS EACH IN THE FIRST QUARTER OF 1920.

YEAR AND QUARTER	1920-Third	1921-Third	1920-Third	1921-Third	1920-Third	1921-Third	1920-Third	1921-Third	1920-Third	1921-Third	1920-Third	1921-Third	1920-Third	1921-Third
FULL TIME EMPLOYEE HOURS SCHEDULED (MILLIONS)	2105	5892	1520	1091	32	33	922	844	330	284	321	312	1189	1109
EMPLOYEE HOURS (MILLIONS)														
EMPLOYEE HOURS ACTUALLY WORKED (MILLIONS)	5956	6742	1488	1406	23	23	901	827	307	262	323	311	1180	1165
INDUSTRY	ALL INDUSTRIES	AGRI-CULTURE	EXTRACTION OF MINERALS	FACTORIES	BUILDING AND CONSTRUCTION	TRANSPORTATION	COMMERCE AND TRADE	ALL OTHER INDUSTRIES						

Chart B

DIFFERENCES IN THE TOTAL HOURS OF EMPLOYMENT
GIVEN QUARTERLY AT THE PEAK AND AT THE TROUGH
OF THE BUSINESS CYCLE BY ENTERPRISES EMPLOYING
FROM 21 TO 100 PERSONS EACH IN THE FIRST QUARTER
OF 1920.

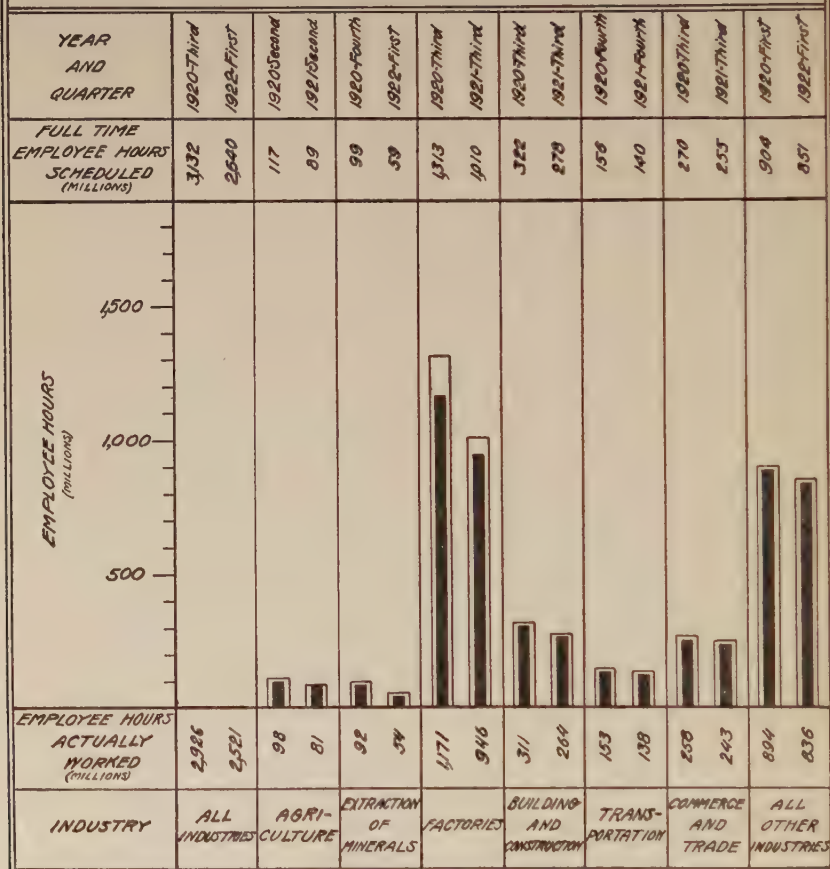
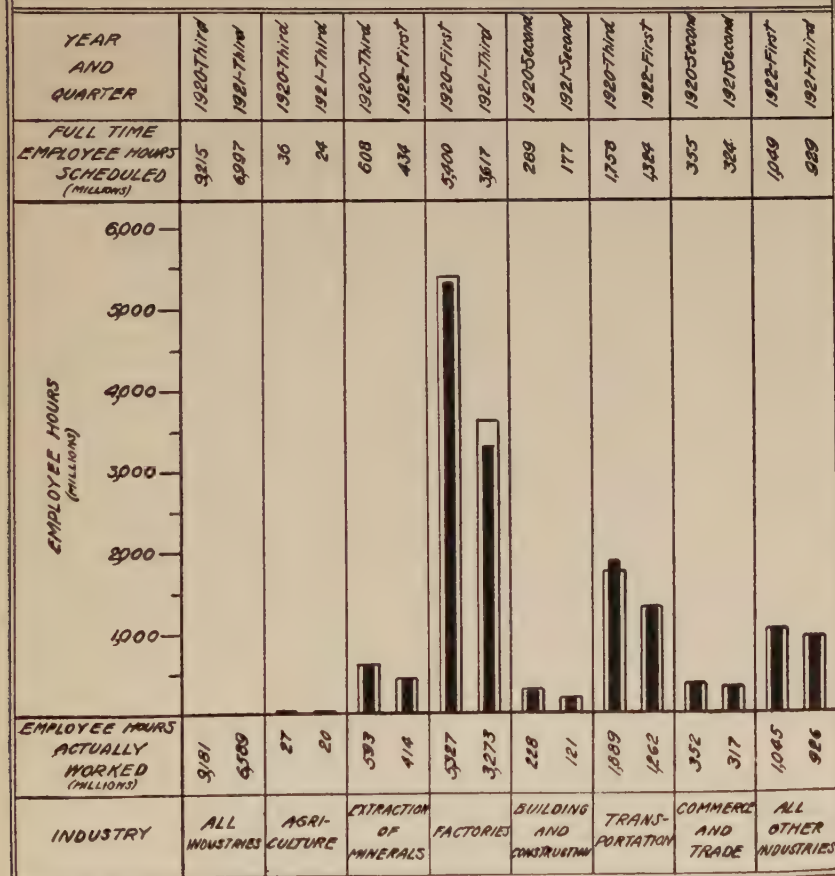


Chart 3

DIFFERENCES IN THE TOTAL HOURS OF EMPLOYMENT GIVEN QUARTERLY AT THE PEAK AND AT THE TROUGH OF THE BUSINESS CYCLE BY ENTERPRISES EMPLOYING MORE THAN 100 PERSONS EACH IN THE FIRST QUARTER OF 1920.



RELATIVE CHANGES IN THE VOLUME OF EMPLOYMENT

A chart adapted to portraying employment as measured in absolute terms usually fails to show clearly the relative changes occurring in the smaller-sized items. For this reason it has been necessary to draft Tables XXIII and XXIV and Charts 4, 5, and 6, which compare by means of index numbers the relative changes from quarter to quarter in the total hours actually worked. A study of these diagrams brings out vividly the varied nature of the changes occurring in the different industrial fields. In certain industries, the seasonal fluctuations almost overshadow the cyclical movements. In one or two instances the erratic movements shown are presumably due to the inadequate size of the sample. This probably explains the large hump in the graph representing mines of the smallest size. Too few records were received to justify one in laying any stress upon the tabulated data for public and professional service. When allowance has been made for these circumstances, one can observe certain well-defined tendencies. Large-scale manufacturing enterprises employed more people in the first quarter of 1920 than at any time in the next two years. Small-scale factories, on the contrary, did not attain maximum activity until the third quarter of 1920. This peculiarity may be due primarily to the fact that the business of small factories is more seasonal and the middle of the year is the period of greatest activity or it may indicate that the larger concerns more quickly sensed the impending debacle. In general, the curves showing employment in factories of the largest size keep well below the lines representing the smaller enterprises.

Other industrial fields show somewhat the same characteristics as factories, though there are exceptions to the rule. For example, in only two cases, namely, domestic and personal service and miscellaneous hand trades, did concerns of either class fail to increase their volume of employment after the first quarter of 1920. It appears that, in this cycle, large-sized factories were the first to feel the tremors of the approaching economic earthquake. In no instance do the very small enterprises show a material reduction in the volume of employment at the close as compared to the beginning of the period, but the opposite is true of seven out of the twelve industries for enterprises employing over 100 workers in the first quarter of 1920. Only in public and professional service and the miscellaneous hand trades was there a distinct increase in the hours of work performed in large-scale concerns. Since all the graphs are on the same scale, it is easy to observe the relatively great stability of employment in mercantile concerns as compared to that given by agriculture, mines, railways, construction works, or factories.

TABLE XXIII

**INDEX NUMBERS SHOWING THE RELATIVE CHANGES IN THE TOTAL HOURS
WORKED BY ALL EMPLOYEES IN FACTORIES OF DIFFERENT SIZES**

Base Period = First Quarter of 1920

NATURE OF PRODUCT	NUMBER OF EMPLOY- EES PER CONCERN ^a	INDEX FOR QUARTER SPECIFIED								
		1920				1921				1922
		1st	2d	3d	4th	1st	2d	3d	4th	
ALL FACTORY PRODUCTS	0- 20	100	111	118	105	94	105	109	98	95
	21-100	100	108	111	106	92	91	90	94	90
	Over 100	100	97	96	86	70	64	61	64	66
FOOD, DRINK, AND TOBACCO	0- 20	100	110	133	119	100	106	125	112	103
	21-100	100	101	112	120	92	92	97	107	89
	Over 100	100	91	97	91	75	69	76	77	70
LUMBER AND ITS PRODUCTS	0- 20	100	112	110	92	84	102	93	78	80
	21-100	100	114	113	89	81	90	95	90	91
	Over 100	100	99	99	91	80	84	88	91	90
METALS AND METAL PRODUCTS ^b	0- 20	100	117	148	123	107	103	122	107	99
	21-100	100	130	147	131	102	76	70	78	88
	Over 100	100	97	96	85	64	53	47	49	56
PAPER AND PRINTING	0- 20	100	102	100	106	108	106	106	115	107
	21-100	100	99	97	105	93	88	86	100	93
	Over 100	100	98	100	102	88	84	81	83	85
MINERALS AND CHEMICALS ^c	0- 20	100	109	117	125	107	113	118	118	113
	21-100	100	99	102	103	95	93	94	99	95
	Over 100	100	100	101	94	78	73	71	72	73
TEXTILE AND LEATHER GOODS ^d	0- 20	100	110	116	90	84	106	116	93	102
	21-100	100	104	102	95	93	100	91	92	87
	Over 100	100	99	94	80	77	82	87	93	85

^a In first quarter of 1920.

^b Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^c Includes chemical, stone, glass, and clay products.

^d Includes clothing of all kinds.

TABLE XXIV

**INDEX NUMBERS SHOWING THE RELATIVE CHANGES IN THE TOTAL HOURS
WORKED BY EMPLOYEES IN ENTERPRISES OF DIFFERENT SIZES**

Base Period = First Quarter of 1920

INDUSTRY	NUMBER OF EMPLOY- EES PER CONCERN ^a	INDEX FOR QUARTER SPECIFIED								
		1920				1921				1922
		1st	2d	3d	4th	1st	2d	3d	4th	1st
ALL INDUSTRIES ^b	0- 20	100	110	118	107	98	106	114	105	100
	21-100	100	104	107	104	97	96	95	96	92
	Over 100	100	100	101	93	78	73	72	75	74
AGRICULTURE	0- 20	100	140	182	127	96	140	178	125	99
	21-100	100	128	116	106	102	107	100	101	103
	Over 100	100	121	154	135	125	116	117	99	46
EXTRACTION OF MINERALS	0- 20	100	103	102	99	99	160	169	128	102
	21-100	100	83	94	106	98	95	81	67	62
	Over 100	100	104	110	104	90	80	79	78	77
BUILDING AND CONSTRUCTION	0- 20	100	123	134	119	90	105	129	127	115
	21-100	100	120	138	126	121	116	117	113	102
	Over 100	100	120	118	75	53	74	97	99	104
OTHER HAND TRADES	0- 20	100	109	103	105	99	107	102	103	102
	21-100	100	97	95	100	98	100	99	100	95
	Over 100	100	116	107	113	108	122	119	120	114
FINANCE	0- 20	100	101	103	103	105	105	106	105	104
	21-100	100	101	105	106	107	107	107	108	107
	Over 100	100	101	102	97	95	82	81	76	78
PUBLIC AND PROFESSIONAL SERVICE	0- 20	100	99	100	91	95	89	92	92	101
	21-100	100	98	101	96	92	94	99	95	90
	Over 100	100	97	93	108	110	102	95	113	115
DOMESTIC AND PERSONAL SERVICE	0- 20	100	104	108	106	103	104	109	100	100
	21-100	100	97	93	95	96	94	90	95	94
	Over 100	100	101	104	104	103	102	101	100	100
STEAM RAILWAYS	0- 20	..	..	..	..	..	..	..	..	..
	21-100	..	..	..	..	..	..	..	..	..
	Over 100	100	101	111	102	79	74	78	80	69
OTHER TRANSPORTA- TION	0- 20	100	107	108	125	96	103	104	121	94
	21-100	100	108	114	111	101	101	104	100	98
	Over 100	100	105	108	105	98	99	100	97	93
MERCANTILE, WHOLESALE	0- 20	100	101	102	104	101	103	102	103	101
	21-100	100	100	103	102	97	96	93	93	91
	Over 100	100	113	108	99	94	105	103	94	90
MERCANTILE, RETAIL	0- 20	100	102	103	104	100	102	102	103	99
	21-100	100	100	98	103	96	96	94	98	93
	Over 100	100	100	97	107	90	90	88	100	89

^a In first quarter of 1920.

^b Includes factories.

Chart 4.

RELATIVE CHANGES IN THE
TOTAL HOURS WORKED BY ALL EMPLOYEES
IN FACTORIES OF DIFFERENT SIZES

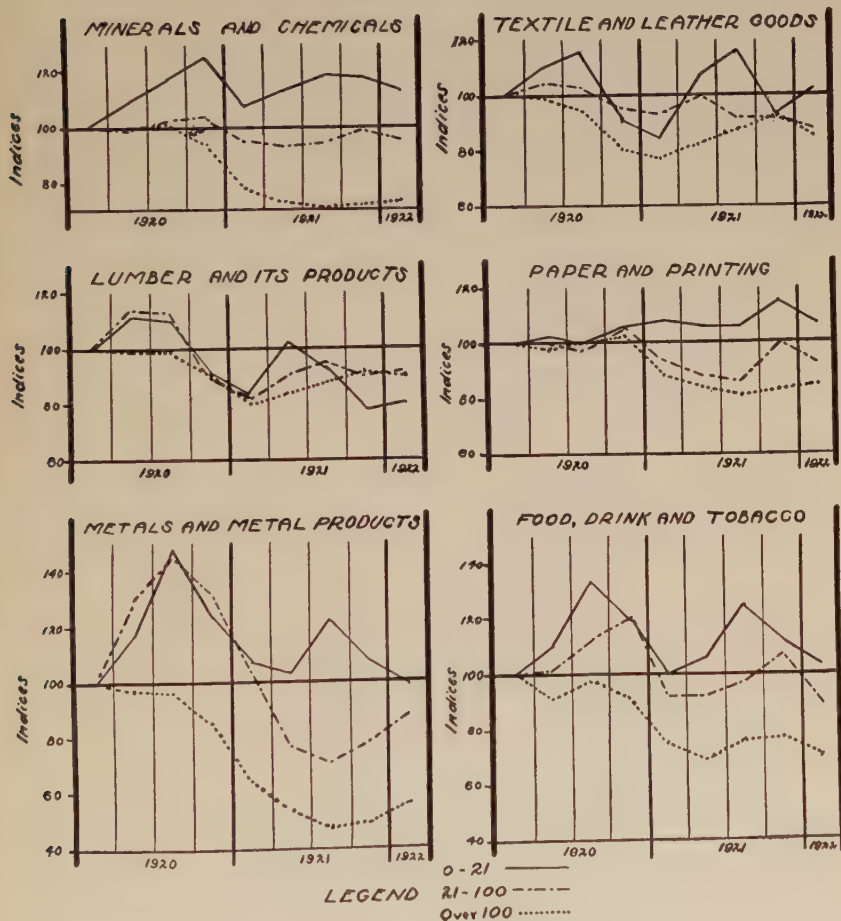


Chart 5

RELATIVE CHANGES IN THE
TOTAL HOURS WORKED BY EMPLOYEES IN
ENTERPRISES OF DIFFERENT SIZES
(HIGHLY VARIABLE INDUSTRIES)

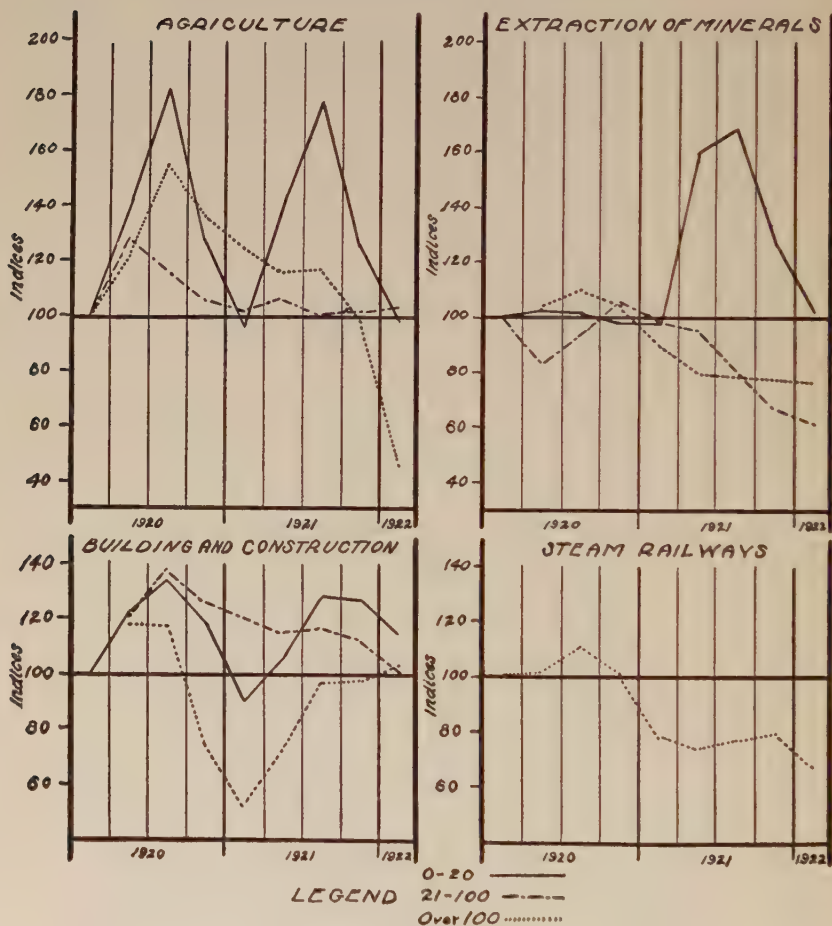
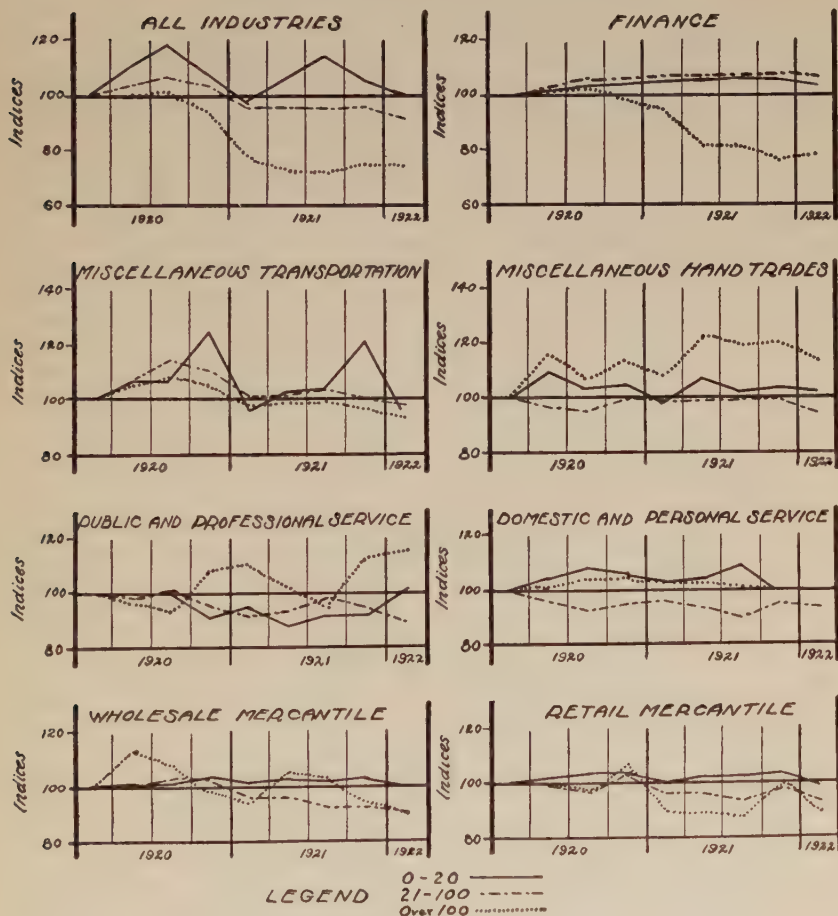


Chart 6

RELATIVE CHANGES IN THE
TOTAL HOURS WORKED BY EMPLOYEES IN
ENTERPRISES OF DIFFERENT SIZES

MODERATELY VARIABLE INDUSTRIES



EMPLOYMENT AS SHOWN BY RECORDS FURNISHED BY EMPLOYEES

All data thus far utilized in this chapter have been derived from reports made by employers. It is of interest to compare the results obtained from this source with the figures given by employees themselves. As Table XXV shows, the sample obtained in this manner was small and its value is lessened by the fact that employees were asked to report their unemployment for a period running back two years. Under these circumstances the chances are that many days of idleness were forgotten and that the per cent of time lost was larger than that reported. Information was obtained for only five quarters. Despite these shortcomings in the quality of the material, it seems worth while to see what the figures as given show.

Owing to the fact that a number of the informants began work during the period, most of the figures in Table XXV are given an upward tilt. Despite this circumstance, however, we find in the records for males a very sharp decline in hours worked in the extraction of minerals and very noticeable downward movements in work performed in transportation and likewise in manufacturing. These results corroborate the findings derived from the information given by employers. The records for female employees show no considerable falling off in any field, but, as will be seen on examining the next table, this effect was due as much to the relatively large accessions to the numbers in the reporting groups as to steadiness of employment.

Tables XXV and XXVI present information concerning all reporting employees who furnished complete data as to hours and earnings. The fact that this group is careful is evidenced by their reports and, as we shall see later, they suffered considerably less from unemployment than did the less methodical workers.

In making up this table, a person who was idle was assigned to the industry in which he had last worked. This table indicates that, in the bottom of the depression, these employees, when averaged for all industries, were working seven-eighths of full time, which shows less unemployment than is indicated by the reports from employers recorded in Table XVIII. This difference is emphasized when one notes the fact that these employees worked only 93.5 per cent of full time in the spring of 1920. However, this difference is not surprising when one considers the small volume of evidence behind Table XXVI. In certain other respects this evidence supports the conclusions of the major study. That such is the case is illustrated by the fact that during the depression, agriculture, mining, construction work, transportation, and manufacturing show percentages of employment for men that are low as compared to these in other industries. This finding, it will be observed, agrees with the data previously presented.

TABLE XXV

THE TOTAL HOURS ACTUALLY WORKED PER QUARTER BY THOSE EMPLOYEES SCATTERED OVER THE CONTINENTAL UNITED STATES WHO FURNISHED COMPLETE REPORTS

SEX	AVERAGE NUMBER OF EMPLOY- EES REPORT- ING	INDUSTRY	1920	1921			1922
			March April May	March April May	June July Aug.	Sept. Oct. Nov.	Dec. Jan. Feb.
MALE	436	All Industries.....	260,403	257,733	274,100	251,767	232,099
	26	Agriculture.....	18,853	17,759	24,942	16,924	12,282
	34	Extraction of Minerals	14,892	7,694	15,399	6,563	2,037
	41	Building and Construc- tion.....	21,734	19,919	22,564	21,527	19,150
	8	Other Hand Trades....	4,378	5,376	4,677	4,661	5,327
	15	Finance.....	7,561	8,430	8,167	9,434	9,551
	29	Public and Professional Service.....	14,323	16,459	13,216	15,092	15,763
	23	Domestic and Personal Service.....	14,066	16,112	16,816	19,939	19,658
	57	Transportation.....	38,410	34,094	40,728	35,520	32,018
	75	Commerce and Trade..	44,197	52,617	54,626	50,827	47,110
	120	Factories.....	78,596	76,136	68,527	68,107	65,957
	8	Industry Unknown....	3,393	3,137	4,438	3,173	3,246
FEMALE	111	All Industries.....	55,712	56,478	54,493	61,829	57,835
	1	Building and Construc- tion.....	1,131	559	559	545	530
	4	Other Hand Trades....	1,049	1,737	1,837	1,601	1,774
	7	Finance.....	2,948	2,948	4,126	4,555	4,342
	18	Public and Professional Service.....	7,124	8,543	6,753	9,947	9,303
	21	Domestic and Personal Service.....	10,749	9,981	8,592	12,748	12,152
	10	Transportation.....	5,363	5,599	6,445	5,090	4,930
	21	Commerce and Trade..	11,147	11,170	10,989	12,314	10,919
	28	Factories.....	15,518	15,941	15,192	15,029	13,885
	1	Industry Unknown....	683	0	0	0	0

Unemployment was unusually prevalent among those members of this class of reporting women who were engaged in domestic and personal service and the hand trades. On the whole, however, these records show little difference between the two sexes as regards stability of employment.

Table XXVII records the number of nominal working days worked and not worked by adults who were gainfully employed at some time after January 1, 1920, and shows the reasons assigned for the idleness reported. This table includes the records of all employees furnishing data complete in regard to employment whether or not they gave the other information asked for. When records for careless as well as careful employees are thus included, a much larger percentage of unemployment appears than was indi-

TABLE XXVI

**THE PER CENT OF NOMINAL FULL TIME WORKED BY THOSE EMPLOYEES
SCATTERED OVER THE CONTINENTAL UNITED STATES WHO
FURNISHED COMPLETE REPORTS**

SEX	AVERAGE NUMBER OF EMPLOY- EES REPORT- ING	INDUSTRY	1920	1921				1922
			March April May	March April May	June July Aug.	Sept. Oct. Nov.	Dec. Jan. Feb.	
MALE	436	All Industries	93.50	89.65	90.04	88.34	87.66	
	26	Agriculture	94.51	93.55	93.39	87.80	78.69	
	34	Extraction of Minerals	60.73	32.96	62.24	30.28	16.79	
	41	Building and Construc- tion	89.91	84.62	88.20	86.13	82.38	
	8	Other Hand Trades . . .	100.45	84.18	93.52	100.19	101.74	
	15	Finance	99.76	94.45	89.74	100.38	100.68	
	29	Public and Professional Service	100.34	102.12	97.94	100.39	96.76	
	23	Domestic and Personal Service	101.02	93.38	91.48	96.65	96.69	
	57	Transportation	98.18	95.60	97.36	94.83	89.81	
	75	Commerce and Trade . .	98.88	97.53	94.60	95.47	97.29	
	120	Factories	96.28	94.68	89.01	90.56	89.12	
	8	Industry Unknown . . .	79.08	92.78	91.77	92.81	74.34	
FEMALE	111	All Industries	94.45	92.82	88.10	91.94	89.87	
	1	Building and Construc- tion	100.00	100.00	100.00	100.00	100.00	
	4	Other Hand Trades . . .	60.68	75.49	79.84	71.42	66.29	
	7	Finance	99.46	99.46	99.18	99.48	97.38	
	18	Public and Professional Service	101.11	101.87	93.15	101.82	102.52	
	21	Domestic and Personal Service	85.68	84.94	70.82	81.05	81.58	
	10	Transportation	102.11	89.42	94.33	93.45	100.75	
	21	Commerce and Trade . .	97.43	93.09	91.77	96.78	96.20	
	28	Factories	95.86	95.91	91.22	92.65	84.25	
	1	Industry Unknown . . .	100.00	0.00	0.00	0.00	0.00	

cated by Table XXVI. Even in the best of times, on one-sixth of the regular working days these workers were not gainfully occupied. However, the reason for not being gainfully employed was largely the fact that these potential workers were in school or on vacation. The figures in this table which have real significance are those showing the days not worked according to the reasons assigned. The percentage of days lost on account of sickness amounted to about $1\frac{1}{2}$ for males and $2\frac{1}{2}$ for females. More women had trouble in finding work in the summer of 1921 than at any other period, but men had the most difficulty in the winter of 1921-1922. The records for each sex, however, show about four times as many persons out of work for this cause in the middle of the depression as at the crest of

TABLE XXVII

TOTAL DAYS WORKED AND NOT WORKED BY PERSONS WHO HAVE BEEN GAINFULLY EMPLOYED^a AT SOME TIME SINCE JANUARY 1, 1920
Records from Persons Scattered Over the Continental United States

SEX		1920	1921				1922
		March April May	March April May	June July Aug.	Sept. Oct. Nov.	Dec. Jan. Feb.	
MALE	Total Working Days in Period . . .	40,303	41,631	41,724	40,850	40,253	
	Days on Which Part or Full Time Was Worked	33,385	33,214	34,513	32,752	30,436	
	Per Cent of Days on Which Some Work Was Performed	82.84	79.78	82.72	80.18	75.61	
	Total Days Not Worked	6,918	8,417	7,211	8,098	9,817	
	On Account of						
	Strike	188	199	171	304	138	
	Sickness	633	598	721	660	852	
	No Work Available	1,591	3,945	4,008	4,478	6,001	
	Work Not Desired	682	862	633	633	699	
	Other Reasons ^b	3,824	2,813	1,678	2,023	2,127	
FEMALE	Total Working Days in Period . . .	10,966	11,297	11,416	11,104	10,797	
	Days on Which Part or Full Time Was Worked	8,279	8,376	7,967	9,300	8,652	
	Per Cent of Days on Which Some Work Was Performed	75.50	74.14	69.79	83.75	80.13	
	Total Days Not Worked	2,687	2,921	3,449	1,804	2,145	
	On Account of						
	Strike	0	0	0	26	60	
	Sickness	71	429	286	291	358	
	No Work Available	277	443	1,021	431	666	
	Work Not Desired	656	681	860	329	302	
	Other Reasons ^b	1,683	1,368	1,282	727	759	
Number of Persons Reporting {							
Male		516	534	535	536	542	
Female		142	145	147	148	147	

^a Almost always as employees.

^b Usually means attending school.

the boom. A record of "Not Gainfully Occupied" on account of "Other Reasons" usually means that the informant was attending school at that period. This item has then slight significance as regards unemployment.

A careful analysis of the information obtained from employees seems, therefore, not to be in serious conflict with the data secured from employers, but rather to confirm in many respects the conclusions based upon that material.

EMPLOYMENT ON FARMS

So many farmers furnished complete information concerning the employees on their farms that it is possible to compare different sections of the country in regard to the volume of this type of employment. Table XXVIII reveals no striking differences in the changes in employment occurring in the various geographical areas. The North Central farmers did, however, hire somewhat fewer employees in the summer of 1921 than in the same period in 1920, but those in the Middle Atlantic and New England sections showed no such tendency.

Tables XXIX and XXX are condensed summaries recording the total hours of help per week that the average Crop Reporter employs. Since, as previously stated, the Crop Reporters, on the average, hire much more help than do other farmers, the averages presented in these tables are far too large to represent conditions on all the farms in the United States. Many interesting relationships may, however, be brought out by a study of these figures. The reporting farmers, on the average, use in the winter time about 56 hours of man labor and about 10 hours of woman labor per week; but in the summer time this average is nearly doubled for men and increased by something over one-half for women. During the summer season the New England, South Atlantic, and Pacific Coast farmers hire far more men than do farmers in other regions, while the North Central and West South Central farmers employ less help at that period than do those in any of the other sections. In the winter months the North Central and Rocky Mountain Crop Reporters get along with less than thirty hours of male help per week, while New England, the South, and the Pacific Coast States employ far more than their proportional share of male workers.

The custom of having a "year round" hired girl seems to prevail much more generally in New England than elsewhere, the Middle Atlantic farmer hiring much help by the week in the third quarter but not in the other seasons of the year. Female help by the week is most uncommon in the East North Central and Mountain States.

Day work on farms by women is customary in the Northeast, in the South, and also on the Pacific Coast in the third quarter, but is rare at all times in the North Central and Rocky Mountain States, and in the Middle Atlantic and Pacific regions few of this class are employed in the winter time.

TABLE XXVIII

EMPLOYEE HOURS WORKED PER WEEK ON A GROUP OF REPRESENTATIVE FARMS OF THE CONTINENTAL UNITED STATES

SEX	EMPLOYEES WORKING BY	NUMBER OF FARMS ENUMERATED	SECTION OF THE UNITED STATES	1920					1921				1922
				First quarter	Second quarter	Third quarter	Fourth quarter		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
MALE	Month	6,348	Entire U. S.	222,582	306,022	336,664	260,342		218,639	301,533	329,119	255,650	220,421
			Northeast	51,700	64,126	74,929	60,485		52,467	66,901	76,449	61,987	53,663
			North Central	59,142	96,542	107,793	75,542		56,244	91,360	100,717	71,846	55,851
			South	88,075	109,101	109,336	96,640		86,713	106,869	106,824	94,443	87,252
			West	23,665	36,253	44,606	27,675		23,215	36,403	45,129	27,374	23,655
	Day	5,978	Entire U. S.	128,176	189,078	303,803	189,105		121,269	195,994	300,839	185,794	129,931
			Northeast	22,890	38,211	65,945	38,564		23,412	39,870	66,606	39,469	23,316
			North Central	15,126	34,216	79,051	35,108		15,720	37,142	75,995	32,613	17,309
			South	76,237	91,205	103,163	88,922		68,407	92,827	103,681	86,680	75,342
			West	13,923	25,446	55,644	26,511		13,730	26,155	54,557	27,032	13,964
FEMALE	Week	5,687	Entire U. S.	26,836	32,804	37,100	28,756		25,996	32,100	36,444	28,131	28,337
			Northeast	6,700	7,818	10,505	7,716		6,427	7,889	10,040	7,734	6,705
			North Central	7,051	9,235	11,245	7,503		6,162	8,849	10,327	6,779	6,741
			South	11,450	13,417	12,358	12,003		11,874	13,211	13,083	12,012	13,141
			West	1,635	2,334	2,992	1,534		1,533	2,151	2,994	1,606	1,750
	Day	5,629	Entire U. S.	31,528	43,365	56,815	41,663		25,261	42,409	52,338	36,659	27,134
			Northeast	4,864	7,071	14,294	7,642		4,433	7,018	14,840	6,936	3,610
			North Central	3,527	5,426	7,199	4,135		3,421	4,793	7,376	4,095	3,406
			South	21,803	28,643	29,573	25,999		16,021	27,953	25,024	22,694	18,628
			West	1,334	2,225	5,749	3,887		1,386	2,645	5,098	2,934	1,490

TABLE XXIX

TOTAL NUMBER OF HOURS OF EMPLOYMENT FOR HIRED MEN GIVEN PER WEEK ON THE AVERAGE FARM

OWNED BY A CROP REPORTER FOR THE UNITED STATES DEPARTMENT OF AGRICULTURE

FORM OF CONTRACT	NUMBER OF FARMS REPORTING	SECTION	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY THE MONTH	6,348	United States	35.1	48.2	53.0	41.0	34.4	47.5	51.8	40.3	34.7
	585	New England	52.6	65.6	74.0	61.8	53.9	69.0	76.5	64.7	54.8
	403	Middle Atlantic	51.9	63.8	78.5	60.3	51.9	65.8	78.6	59.9	53.6
	1,138	East North Central	21.8	34.3	37.1	26.9	20.9	33.5	35.8	26.1	20.4
	1,419	West North Central	24.2	40.5	46.2	31.7	22.9	37.5	42.3	29.7	23.0
	710	South Atlantic	61.1	74.6	72.9	65.1	58.3	70.0	70.9	61.0	55.6
	768	East South Central	39.0	49.2	49.0	41.5	39.9	50.6	50.0	44.3	42.5
	658	West South Central	22.4	27.9	30.3	28.3	22.2	27.8	27.5	26.0	23.0
	407	Mountain	24.7	44.8	59.5	32.4	22.8	43.0	56.8	30.2	24.2
	260	Pacific	52.3	69.3	78.5	55.7	53.6	72.7	84.6	57.9	53.0
WORKING BY THE DAY	5,978	United States	21.4	31.6	50.8	31.6	20.3	32.8	50.3	31.1	21.7
	542	New England	32.3	51.8	91.6	52.6	32.3	53.7	91.9	53.0	30.1
	363	Middle Atlantic	14.8	27.9	44.9	27.8	16.2	29.7	46.3	29.7	19.4
	1,066	East North Central	7.6	15.2	26.5	12.6	6.6	16.3	25.1	12.8	8.0
	1,351	West North Central	5.2	13.3	37.6	16.0	6.4	14.7	36.5	14.0	6.5
	677	South Atlantic	53.4	55.9	60.8	51.9	42.2	55.6	57.7	50.6	42.7
	708	East South Central	30.1	37.3	42.3	34.6	28.0	39.3	45.4	34.5	34.1
	615	West South Central	30.5	43.8	52.1	47.5	32.6	44.4	52.8	45.6	36.3
	396	Mountain	6.8	21.0	57.8	21.9	6.6	21.1	57.1	21.6	7.7
	260	Pacific	43.2	65.9	125.9	68.7	42.8	68.5	122.8	71.0	41.9

TABLE XXX

TOTAL NUMBER OF HOURS OF EMPLOYMENT FOR HIRED WOMEN GIVEN PER WEEK ON THE AVERAGE FARM

OWNED BY A CROP REPORTER FOR THE UNITED STATES DEPARTMENT OF AGRICULTURE

FORM OF CONTRACT	NUMBER OF FARMS REPORTING	SECTION	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY THE WEEK	5,687	United States	4.7	5.8	6.5	5.1	4.6	5.6	6.4	4.9	5.0
	506	New England	10.1	11.6	12.6	11.4	10.1	12.1	13.4	12.2	10.2
	327	Middle Atlantic	4.8	6.0	12.6	5.9	4.1	5.4	9.9	4.8	4.7
	978	East North Central	2.2	3.2	3.5	2.5	2.1	3.4	3.4	2.4	2.3
	1,280	West North Central	3.8	4.8	6.1	4.0	3.2	4.3	5.5	3.5	3.5
	619	South Atlantic	8.0	8.5	8.7	8.4	8.5	8.9	9.0	8.5	8.7
	685	East South Central	3.4	4.7	4.1	3.5	4.0	4.5	4.3	3.7	4.9
	656	West South Central	6.3	7.6	6.3	6.7	6.0	7.0	7.0	6.4	6.6
	392	Mountain	1.9	2.5	4.2	1.7	1.6	1.9	3.9	1.5	2.2
	244	Pacific	3.6	5.5	5.6	3.5	3.8	5.8	6.0	4.1	3.7
WORKING BY THE DAY	5,629	United States	5.6	7.7	10.1	7.4	4.5	7.5	9.3	6.5	4.8
	513	New England	7.7	9.8	20.4	12.2	6.9	9.4	22.4	11.4	5.6
	322	Middle Atlantic	2.8	6.2	11.8	4.3	2.8	6.8	10.5	3.3	2.3
	966	East North Central	2.1	2.6	3.4	2.5	2.2	2.6	3.6	2.5	2.1
	1,252	West North Central	1.2	2.4	3.1	1.4	1.0	1.8	3.1	1.4	1.1
	616	South Atlantic	19.9	18.9	19.2	18.2	11.7	19.2	15.8	15.0	11.8
	668	East South Central	8.9	14.2	14.3	11.4	8.0	13.6	13.5	11.3	9.5
	655	West South Central	5.5	11.4	12.5	10.9	5.3	10.7	9.6	8.9	7.7
	392	Mountain	2.2	2.8	4.7	3.7	2.5	3.2	5.3	3.3	2.8
	244	Pacific	1.9	4.5	15.9	10.0	1.7	5.8	12.4	6.7	1.7

ACCURATE AND INACCURATE MEASURES OF EMPLOYMENT

It has been shown in the preceding pages that the number of employee hours actually worked is the ideal criterion of employment in any industry. Unfortunately, at present, no agency furnishes a continuous record of this quantity for even a single state. The Federal Government and the States of Massachusetts, New York, and Wisconsin, publish statistics of numbers on the pay rolls and total wages paid in certain industries. If these statistics were extended to cover all fields, would we then have accurate records of employment? The answer to this question is contained in Table XXXI and Chart 7, which compare the records of the two other quantities with those showing the volume of employment. During the boom, salaries and wages rose faster than did total employee hours, but, in the following depression, they fell further. On the other hand, the total number of hours worked during the period of decline in industrial activity went down distinctly faster than did the number of employees on all pay rolls. The relative divergence, in this particular cycle, at least, is more marked in the consolidated totals for factories, mines, and railways than in those for all industries, the difference in the former case running most of the time from two to eight per cent of the total volume of employment. If rough approximations only are required, this difference is too small to be of moment, but it is large enough to destroy the possibility of precision in the measurement of this phenomenon. Since precision is desirable when readily attainable, the conclusion is justified that employment statistics in the future should, whenever possible, include a statement of the total employee hours worked as well as records of the numbers on the pay rolls and totals of wage and salary payments.

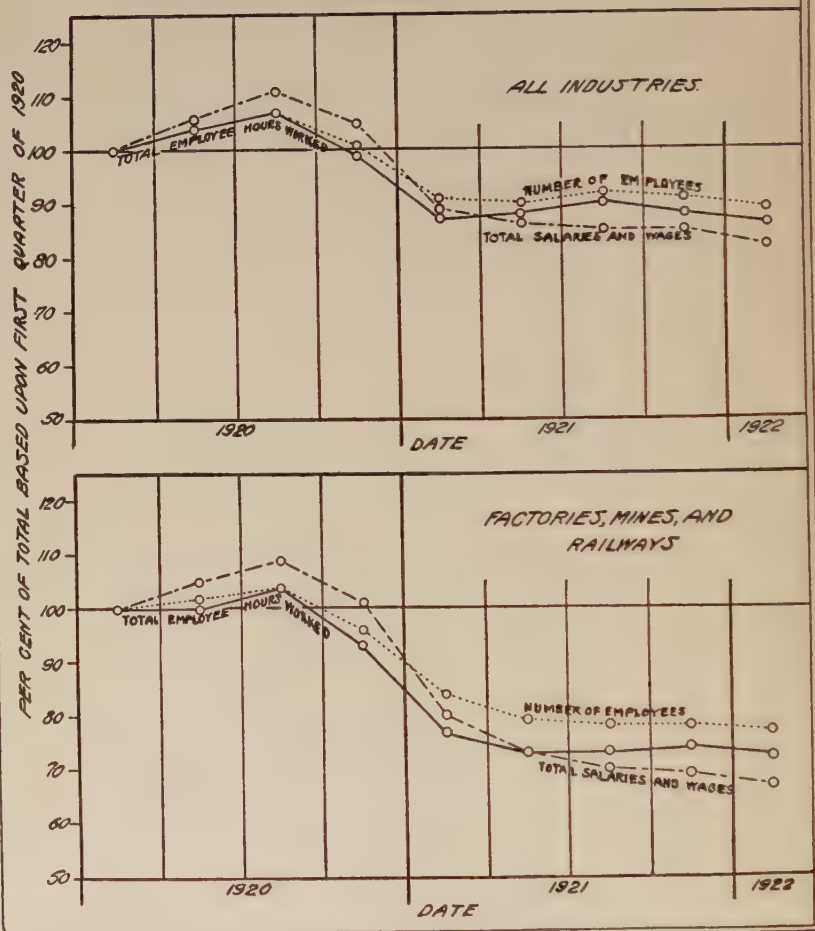
TABLE XXXI

RELATIVE CHANGES IN THE NUMBER OF EMPLOYEES ON PAY ROLLS, TOTAL EMPLOYEE HOURS WORKED, AND
COMBINED SALARY AND WAGE PAYMENTS IN THE CONTINENTAL UNITED STATES

	1920				1921				1922
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
ACTUAL NUMBERS									
All Industries									
Employees on Pay Rolls (Thousands)	27,232	28,377	29,180	27,416	24,828	24,598	25,078	24,774	24,147
Employee Hours Worked (Millions)	17,747	18,395	19,064	17,612	15,515	15,549	15,919	15,655	15,180
Total Salaries and Wages (Millions)	9,463	10,048	10,472	9,905	8,380	8,114	8,047	8,055	7,744
Factories, Mines, and Railways									
Employees on Pay Rolls (Thousands)	14,228	14,450	14,690	13,685	11,924	11,207	11,114	11,135	11,026
Employee Hours Worked (Millions)	9,150	9,183	9,417	8,539	7,065	6,702	6,646	6,742	6,618
Total Salaries and Wages (Millions)	5,540	5,791	6,031	5,584	4,413	4,065	3,877	3,824	3,729
INDEX NUMBERS BASED UPON FIRST QUARTER OF 1920									
All Industries									
Employees on Pay Rolls	100	104	107	101	91	90	92	91	89
Employee Hours Worked	100	104	107	99	87	88	90	88	86
Total Salaries and Wages	100	106	111	105	89	86	85	85	82
Factories, Mines and Railways									
Employees on Pay Rolls	100	102	103	96	84	79	78	78	77
Employee Hours Worked	100	100	103	93	77	73	73	74	72
Total Salaries and Wages	100	105	109	101	80	73	70	69	67

Chart 7

RELATIVE CHANGES IN THE
NUMBER OF EMPLOYEES ON PAY ROLLS,
TOTAL EMPLOYEE HOURS WORKED, AND
COMBINED SALARY AND WAGE PAYMENTS.
CONTINENTAL U.S.



CHAPTER IV

THE HOURS WORKED PER WEEK

FULL-TIME HOURS PER WEEK

According to some historians, our great-grandfathers thought twelve hours a reasonable day's work. For more than a hundred years, however, the length of the working day has been declining steadily, until, as Table XXXIII shows, the average American employee, in the first quarter of 1922, was expected by his employer to work only 50.3 hours per week—just a trifle more than the eight hours for six days set forth as an ideal by reformers of a generation or two ago. This table indicates that the length of the working week declined 36 minutes during the two years covered by the study. It is likely that the data at hand somewhat exaggerate the decline as there is reason to believe that a number of the informants, because of plant shut downs and the like, reported too few full-time hours in 1922. It is probable, nevertheless, that at least part of this reported diminution in working time is real.

As previously stated, it is difficult to define accurately the term full-time hours. The quantity sought under this title in this inquiry was the hours that the employer scheduled for work for the average of his employees when his plant was in full operation. This quantity, when reported correctly, is not affected by temporary shut downs or by any of the ordinary devices used in times of depression to spread work. Many informants, however, confused this term with "hours actually worked" and, despite careful efforts to eliminate all errors, some probably remained among the data tabulated.

Of all classes of employers reporting, those engaged in rendering domestic and personal service¹ record the longest full-time hours for those working under their direction, the average being slightly more than eight hours daily for a seven day week. Farmers and retail merchants each require over 53 hours of work per week from their employees. Employers in a considerable group of industries usually call for less than 48 hours per week from their workers. This group includes building and construction, finance, public and professional service, paper and printing establishments, and factories making textiles, clothing, leather, and leather goods.

The evidence presented in the chapter just preceding shows clearly that the man who is anxious to have a steady job in dull times as well as in good

¹ Mostly keepers of hotels and restaurants.

EMPLOYMENT HOURS AND EARNINGS

TABLE XXXIII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE FULL-TIME HOURS PER WEEK FOR THE AVERAGE EMPLOYEE IN ALL ENTERPRISES OF WHATEVER SIZE

INDUSTRY	AVERAGE FULL-TIME HOURS PER WEEK							
	1920				1921			
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter
All Industries.....	50.9	51.1	51.3	50.7	50.5	50.7	51.0	50.4
Agriculture.....	53.8	55.8	55.4	51.8	54.2	55.5	55.6	51.6
Extraction of Minerals.....	50.5	50.4	50.5	50.7	49.5	48.8	49.3	49.4
Building and Construction.....	46.3	46.4	46.5	46.6	46.5	46.5	46.4	46.2
Other Hand Trades.....	51.2	51.3	51.6	51.5	51.4	51.5	51.5	51.4
Finance.....	45.9	45.2	45.9	45.9	45.8	45.7	45.7	45.9
Public and Professional Service.....	48.8	48.9	49.3	48.0	47.5	47.5	48.1	47.3
Domestic and Personal Service.....	57.1	56.7	56.8	56.7	56.7	56.6	57.1	56.8
All Transportation.....	49.3	49.4	49.5	49.7	49.4	49.4	49.4	49.6
Steam Railways.....	48.2	48.2	48.2	48.2	48.1	48.1	48.1	48.1
Other Transportation.....	51.4	51.6	51.8	52.2	51.2	51.2	51.4	51.8
Commerce and Trade.....	53.2	53.4	53.2	52.8	53.1	53.5	53.3	52.9
Wholesale.....	50.1	50.7	50.6	50.1	50.2	51.1	50.7	50.3
Retail.....	53.5	53.7	53.5	53.2	53.5	53.8	53.7	53.2
All Factories.....	50.3	50.4	50.7	50.2	49.4	49.6	49.7	49.6
Food, Drink, and Tobacco.....	51.1	51.5	53.0	51.3	51.3	51.5	52.6	51.6
Lumber and Its Products.....	53.4	53.7	53.6	52.5	51.7	53.2	52.5	52.4
Metals and Metal Products ^a	51.0	51.2	51.4	51.0	50.0	49.7	49.8	50.0
Paper and Printing.....	48.3	48.3	48.4	48.3	47.8	47.8	47.3	47.7
Mineral Products ^b	50.4	50.4	50.1	50.5	50.8	50.8	50.9	50.7
Textile and Leather Products ^c	47.5	47.5	47.7	46.9	46.5	47.3	47.5	47.2

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.

TABLE XXXIV

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE FULL-TIME HOURS PER WEEK FOR THE AVERAGE
EMPLOYEE IN ALL ENTERPRISES HAVING FEWER THAN 21^d EMPLOYEES**

INDUSTRY	AVERAGE FULL-TIME HOURS PER WEEK							
	1920				1921			
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter
All Industries.....	53.6	54.0	54.1	52.9	53.2	53.6	53.9	52.6
Agriculture.....	53.8	55.9	55.4	51.5	54.2	55.5	55.7	53.5
Extraction of Minerals.....	43.7	42.9	41.1	45.1	45.1	44.0	44.9	43.6
Building and Construction.....	47.5	48.5	48.4	47.6	47.5	48.2	47.9	47.2
Other Hand Trades.....	51.2	51.6	52.0	51.5	51.5	51.8	51.7	51.6
Finance.....	47.7	45.8	47.5	47.6	47.3	47.5	47.4	47.5
Public and Professional Service.....	52.1	51.9	52.0	51.0	50.0	49.6	50.1	50.8
Domestic and Personal Service.....	57.7	57.7	57.7	57.3	57.7	57.7	58.1	57.8
All Transportation.....	53.1	53.5	53.6	54.5	53.1	53.2	53.2	52.7
Steam Railways.....	53.1	53.5	53.6	54.5	53.1	53.2	53.2	52.7
Other Transportation.....	55.0	55.2	55.2	54.6	54.6	55.0	55.1	54.1
Commerce and Trade.....	50.4	50.3	50.4	50.4	50.2	50.5	50.4	50.3
Wholesale.....	55.2	55.3	55.3	54.8	54.7	55.1	55.3	54.2
Retail.....	51.3	51.6	52.1	51.2	51.0	51.6	51.9	51.0
All Factories.....	52.5	52.6	55.6	55.5	52.2	52.5	55.3	52.4
Food, Drink, and Tobacco.....	54.8	54.9	54.8	54.4	53.5	54.9	54.5	54.1
Lumber and Its Products.....	49.7	50.7	52.2	51.2	50.6	50.7	51.5	49.6
Metals and Metal Products ^a	47.6	47.6	48.0	47.7	47.8	47.8	47.8	47.7
Paper and Printing.....	48.1	48.9	48.2	49.4	49.8	49.9	50.1	49.7
Mineral Products ^b	45.3	45.5	45.6	45.2	45.4	45.5	45.5	45.0
Textile and Leather Products ^c								

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Enterprises have been classified upon the basis of the number of employees at work in the first quarter of 1920.

TABLE XXXV

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE FULL-TIME HOURS PER WEEK FOR THE AVERAGE
EMPLOYEE IN ALL ENTERPRISES HAVING 21 TO 100^a EMPLOYEES**

INDUSTRY	AVERAGE FULL-TIME HOURS PER WEEK							
	1920				1921			
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter
All Industries.....	51.7	51.9	52.0	51.8	51.4	51.3	51.4	51.5
Agriculture.....	53.7	55.1	54.9	54.4	54.2	54.9	55.0	54.2
Extraction of Minerals.....	51.4	52.1	52.2	52.1	51.0	51.6	51.9	53.7
Building and Construction.....	47.6	46.8	46.8	47.1	46.7	46.5	46.7	46.4
Other Hand Trades.....	51.2	51.0	51.0	51.5	51.5	51.2	51.3	51.4
Finance.....	45.2	45.1	45.5	45.7	46.1	45.9	45.9	46.2
Public and Professional Service.....	51.8	51.7	52.1	51.7	51.9	51.1	50.9	50.0
Domestic and Personal Service.....	56.6	56.1	56.5	56.0	56.1	55.9	56.5	56.2
All Transportation.....	56.2	56.4	56.5	56.3	55.9	56.3	56.3	55.8
Steam Railways.....	56.2	56.4	56.5	56.3	55.9	56.3	56.3	55.8
Other Transportation.....	52.3	52.2	51.9	51.2	52.0	52.0	51.8	52.2
Commerce and Trade.....	50.1	50.3	50.3	49.8	50.0	50.2	50.2	50.1
Wholesale.....	53.0	52.9	52.5	51.6	52.6	52.6	52.3	52.9
Retail.....	50.4	51.2	51.8	51.4	50.2	50.1	50.4	49.9
All Factories.....	52.5	52.6	55.6	55.5	52.2	52.5	55.3	52.4
Food, Drink, and Tobacco.....	54.1	54.4	54.2	53.3	52.1	53.5	53.0	52.1
Lumber and Its Products.....	51.5	54.7	55.0	53.9	53.2	51.0	50.1	51.7
Metals and Metal Products ^a	49.2	49.2	49.0	49.3	49.0	48.0	47.6	48.1
Paper and Printing.....	53.3	52.9	52.6	53.0	52.6	52.5	52.5	52.3
Mineral Products ^b	45.9	46.1	46.5	46.3	46.1	46.5	46.4	45.9
Textile and Leather Products ^c								

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Enterprises have been classified upon the basis of the number of employees at work in the first quarter of 1920.

TABLE XXXVI

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE FULL-TIME HOURS PER WEEK FOR THE AVERAGE EMPLOYEE IN ALL ENTERPRISES HAVING OVER 100 ^d EMPLOYEES

INDUSTRY	AVERAGE FULL-TIME HOURS PER WEEK							
	1920				1921			
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter
All Industries.....	49.0	49.0	49.1	48.9	48.2	48.2	48.3	48.2
Agriculture.....	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
Extraction of Minerals.....	50.8	50.7	50.8	50.7	49.5	48.7	49.3	48.8
Building and Construction.....	44.0	44.0	44.0	44.0	44.0	44.0	43.9	44.0
Other Hand Trades.....	51.4	51.2	51.2	51.3	51.3	51.1	51.2	51.1
Finance.....	44.7	44.6	44.5	44.2	44.0	43.3	43.4	43.2
Public and Professional Service.....	43.0	43.4	43.9	43.0	43.0	43.4	43.9	42.9
Domestic and Personal Service.....	54.5	51.5	51.5	54.7	51.5	51.5	51.5	51.6
All Transportation.....	48.2	48.3	48.3	48.3	48.2	48.1	48.2	48.0
Steam Railways.....	48.2	48.2	48.2	48.2	48.1	48.1	48.1	48.1
Other Transportation.....	48.5	48.6	48.9	48.9	48.3	48.0	48.4	47.6
Commerce and Trade.....	48.3	48.8	48.0	48.6	49.1	49.7	48.6	49.4
Wholesale.....	50.0	51.1	50.9	50.1	50.3	51.8	51.2	50.4
Retail.....	47.7	47.9	48.0	48.2	48.6	48.9	47.6	48.9
All Factories.....	50.1	50.1	50.1	49.8	48.9	49.1	49.1	49.3
Food, Drink, and Tobacco.....	49.9	49.9	50.6	50.5	49.9	49.7	49.5	49.9
Lumber and Its Products.....	50.7	51.1	50.9	50.6	48.8	49.9	49.1	50.4
Metals and Metal Products ^a	51.0	50.9	51.0	50.8	49.8	49.6	49.8	50.1
Paper and Printing.....	48.2	48.3	48.2	48.2	47.9	47.7	46.7	47.7
Mineral Products ^b	48.8	48.9	48.3	47.6	45.3	46.9	46.4	50.0
Textile and Leather Products ^c	48.1	48.1	48.2	47.2	46.7	47.7	48.0	47.8

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Enterprises have been classified upon the basis of the number of employees at work in the first quarter of 1920.

ought to seek a position with a small employer. However, if he followed this course during the last few years, he may have discovered that he gained less than he expected by the choice, for Table XXXIV shows that in the last quarter for which reports are available he was asked to work 53.0 hours each week in the small enterprise instead of the 47.8 that the large establishment, on the average, required him to serve. This difference is partly accounted for by the fact that farmers form so large a proportion of small employers. However, the farmers are not the only ones of this class who call for longer hours than the average. According to Tables XXXIV, XXXV, and XXXVI, in 9 out of 17 industries, employers hiring fewer than 21 workers required their employees to work over 50 hours per week in the first quarter of 1922. In the group employing 21 to 100 workers, long hours for employees proved to be even more common than in the smaller enterprises at the same date, for 12 out of the 17 industrial groups had full-time hours of more than 50 per week. Only in concerns employing over 100 men were shorter hours the rule. In that group, only 7 of the 17 industries expected their men to work as much as 50 hours per week.

HOURS ACTUALLY WORKED PER WEEK BY EMPLOYEES ON THE PAY ROLLS

The records secured of hours actually worked per week are probably more accurate than are those of full-time hours. The averages presented in Tables XXXVII, XXXVIII, XXXIX, and XL are obtained in each instance by dividing the total number of employee hours¹ worked by the number of employees on the pay roll. Averages derived in this way are affected by over-time or under-time in the work of those retained on the pay rolls, but, manifestly, half the force might be laid off without changing in any way the average hours shown to have been worked by those still employed.

The percentages of decline in the furthest right hand column, therefore, represent primarily either the elimination of over-time work or the resort to part-time work brought about by the depression, and not the effects of reducing the numbers of employees on the pay rolls. Since this matter has already been discussed rather fully in the preceding chapter, it seems unnecessary to consider it further at this point.

HOURS WORKED BY FARM EMPLOYEES

The man who has spent all his life in the city is apt to dream of the leisurely life of the farmer. The boy reared on the farm has, however, a different view of farm life; for he remembers vividly both the mornings in summer when, on being called from a comfortable bed at 4 A.M., he tumbled

¹ The total number of hours actually worked by all employees combined.

TABLE XXXVII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE HOURS ACTUALLY WORKED PER WEEK BY THE AVERAGE EMPLOYEE IN ALL ENTERPRISES OF WHATEVER SIZE

INDUSTRY	AVERAGE HOURS ACTUALLY WORKED PER WEEK								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	50.1	49.9	50.3	49.4	48.1	48.6	48.8	48.6	48.4	3.99
Agriculture.....	51.2	52.0	53.6	51.2	50.1	52.8	54.2	51.4	50.4	2.15
Extraction of Minerals.....	47.6	46.9	48.0	48.0	44.9	44.0	43.6	45.4	46.2	9.17
Building and Construction.....	43.6	43.9	44.0	44.2	43.2	43.8	43.8	43.7	43.8	1.13
Other Hand Trades.....	49.6	50.5	50.1	50.2	49.3	50.3	50.0	49.9	49.5	0.60
Finance.....	45.7	45.3	45.9	45.5	45.5	45.4	45.5	45.6	45.5	0.87
Public and Professional Service.....	49.1	49.1	49.3	48.1	48.1	47.7	48.0	47.2	47.8	2.85
Domestic and Personal Service.....	56.1	55.5	55.6	55.9	55.4	55.5	55.9	55.1	55.5	1.78
All Transportation.....	51.1	51.3	52.3	51.2	48.6	49.3	49.0	49.1	47.2	7.63
Steam Railways.....	51.5	51.7	52.9	50.9	47.7	48.3	47.9	47.7	45.3	12.04
Other Transportation.....	50.4	50.7	51.1	51.8	50.1	50.6	50.6	51.2	49.8	1.16
Commerce and Trade.....	52.1	52.3	52.1	52.1	52.1	52.5	52.1	52.1	51.9	0.38
Wholesale.....	49.6	50.2	50.1	50.2	50.1	50.8	50.0	49.8	49.7	0.80
Retail.....	52.4	52.6	52.4	52.3	52.4	52.7	52.4	52.4	52.2	0.38
All Factories.....	49.3	48.6	48.7	47.4	45.3	45.8	45.9	46.5	46.3	8.11
Food, Drink, and Tobacco.....	49.8	50.4	50.8	50.9	50.1	50.6	50.4	50.7	49.8	0.79
Lumber and Its Products.....	50.6	51.0	51.3	49.9	48.6	50.4	50.0	49.8	50.0	3.95
Metals and Metal Products ^a	50.9	49.2	49.6	47.9	44.3	43.2	43.4	44.2	46.4	15.12
Paper and Printing.....	47.7	47.6	47.9	47.6	46.6	45.9	45.3	46.9	45.7	5.43
Mineral Products ^b	49.6	49.9	49.4	49.2	47.8	48.8	48.7	49.2	48.3	4.21
Textile and Leather Products ^c	45.6	45.3	45.0	43.0	42.5	44.8	44.8	45.3	43.0	6.80

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.

EMPLOYMENT HOURS AND EARNINGS

TABLE XXXVIII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE HOURS ACTUALLY WORKED PER WEEK BY THE AVERAGE EMPLOYEE IN ALL ENTERPRISES HAVING FEWER THAN 21^a EMPLOYEES

INDUSTRY	AVERAGE HOURS ACTUALLY WORKED PER WEEK								MAXIMUM CYCLICAL DECLINE (Per Cent)
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries.....	52.4	52.8	52.9	52.3	51.9	52.3	52.7	51.7	1.34
Agriculture.....	51.1	52.8	54.0	51.4	50.2	53.0	54.4	51.4	1.96
Extraction of Minerals.....	31.2	30.8	29.5	32.1	32.1	35.2	35.3	30.6	13.31
Building and Construction.....	43.3	45.1	45.2	43.7	42.7	44.4	45.2	43.7	1.55
Other Hand Trades.....	50.3	50.8	51.0	50.6	49.8	50.7	50.5	50.3	0.99
Finance.....	48.3	46.4	48.2	47.9	48.1	47.9	48.1	47.9	0.62
Public and Professional Service.....	52.8	52.5	52.3	51.6	51.6	50.1	50.1	51.3	5.11
Domestic and Personal Service.....	56.4	56.2	56.0	56.8	56.1	56.2	56.6	56.3	1.94
All Transportation.....	52.7	52.5	53.3	54.8	52.1	52.5	52.4	51.8	1.69
Steam Railways.....	52.7	52.5	53.3	54.8	52.1	52.5	52.4	53.9	1.69
Other Transportation.....	53.9	54.3	54.3	54.2	53.9	54.3	54.1	53.9	0.93
Commerce and Trade.....	49.5	49.7	49.6	49.9	49.6	49.9	49.8	49.6	0.00
Wholesale.....	54.1	54.5	54.5	54.3	54.0	54.4	54.2	53.6	0.92
Retail.....	50.3	50.5	51.0	49.8	49.7	50.3	50.8	49.8	1.19
All Factories.....	52.1	52.8	52.7	52.6	51.5	52.9	52.8	52.2	1.15
Food, Drink, and Tobacco.....	52.7	53.1	53.2	51.8	52.0	53.3	53.2	52.6	1.33
Lumber and Its Products.....	49.5	51.3	52.2	50.2	50.1	51.8	52.3	49.6	2.79
Metals and Metal Products ^a	47.2	47.3	47.2	46.1	46.5	46.0	47.1	46.5	2.75
Paper and Printing.....	48.0	48.7	48.6	50.3	49.9	49.4	49.9	49.8	3.58
Mineral Products ^b	46.0	42.5	45.5	41.3	42.8	42.1	44.8	44.2	6.96
Textile and Leather Products ^c									

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Enterprises are classified upon the basis of the number of employees at work in the first quarter of 1920.

TABLE XXXIX

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE HOURS ACTUALLY WORKED PER WEEK BY THE AVERAGE EMPLOYEE IN ALL ENTERPRISES HAVING 21 TO 100^c EMPLOYEES

INDUSTRY	AVERAGE HOURS ACTUALLY WORKED PER WEEK								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	49.9	48.4	48.6	49.2	48.7	49.0	48.8	49.3	49.0	2.40
Agriculture.....	52.0	46.0 ^d	52.1	52.5	50.6	50.1	52.7	52.8	53.3	2.69
Extraction of Minerals.....	45.5	41.7	45.2	48.4	43.0	41.7	35.5	50.4	53.0	26.65
Building and Construction.....	45.8	45.1	45.1	46.0	44.5	44.7	44.4	44.9	45.3	3.48
Other Hand Trades.....	49.6	49.3	49.1	49.7	49.6	49.0	49.0	48.4	48.2	3.02
Finance.....	45.5	45.5	45.4	45.6	45.3	45.0	45.0	45.6	45.3	1.10
Public and Professional Service.....	51.4	50.7	50.7	50.5	50.8	50.6	50.7	49.6	49.8	3.11
Domestic and Personal Service.....	56.1	55.1	55.8	55.4	55.3	55.4	55.8	55.3	55.3	1.43
All Transportation.....	54.2	54.5	55.0	55.4	54.8	55.1	55.0	55.3	54.2	1.09
Steam Railways.....	54.2	54.5	55.0	55.4	54.8	55.1	55.0	55.3	54.2	1.09
Other Transportation.....	51.0	49.7	49.5	49.9	49.8	49.8	49.3	49.8	49.8	2.35
Commerce and Trade.....	49.7	49.7	49.8	50.9	50.8	50.7	49.4	49.6	49.5	2.95
Wholesale.....	51.4	49.7	49.4	49.6	49.5	49.5	49.3	49.9	49.9	3.70
Retail.....	47.9	46.3	46.2	46.8	46.4	47.4	47.2	47.3	46.3	3.55
All Factories.....	51.3	51.3	51.5	51.8	51.1	51.6	50.3	51.9	51.0	2.33
Food, Drink, and Tobacco.....	49.5	49.6	50.6	49.2	47.5	48.9	49.0	49.2	48.5	4.04
Lumber and Its Products.....	48.6	38.5	39.4	42.6	43.7	44.4	45.4	43.5	46.1	20.78
Metals and Metal Products ^a	47.8	47.3	46.2	48.3	47.2	45.8	44.9	48.1	46.1	3.56
Paper and Printing.....	51.9	52.4	52.1	51.6	51.0	51.6	51.6	51.5	49.9	3.85
Mineral Products ^b	43.4	44.4	43.5	42.7	42.6	44.4	43.9	43.1	41.4	4.61
Textile and Leather Products ^c ...										

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here; fluctuations in this group affected unduly by one concern having extremely large variations.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Probably not representative—based upon six schedules, only one of which is very irregular.

^e Enterprises are classified upon the basis of the number of employees at work in the first quarter of 1920.

EMPLOYMENT HOURS AND EARNINGS

TABLE XL

INDUSTRY	AVERAGE HOURS ACTUALLY WORKED PER WEEK								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	48.8	48.5	48.9	47.5	45.1	45.5	45.5	45.9	45.6	6.95
Agriculture.....	50.9	43.4	40.9	40.5	44.1	48.2	46.3	44.7	48.6	13.36
Extraction of Minerals.....	49.0	48.8	50.0	48.9	46.1	45.4	46.3	46.0	46.7	7.40
Building and Construction.....	42.0	41.6	41.4	42.4	41.3	41.7	41.2	42.1	42.5	2.83
Other Hand Trades.....	48.0	51.2	49.1	49.9	47.5	51.1	50.3	50.7	49.4	1.04
Finance.....	43.3	44.0	44.0	43.1	43.0	42.7	42.6	42.6	42.6	3.18
Public and Professional Service.....	43.0	43.4	43.9	43.0	43.0	43.4	43.9	42.9	42.9	0.23
Domestic and Personal Service.....	54.4	51.4	52.4	51.3	51.4	51.3	51.3	51.3	51.4	5.70
All Transportation.....	50.6	50.9	51.9	50.3	47.5	48.2	47.9	47.7	45.7	9.68
Steam Railways.....	51.5	51.7	52.9	50.9	47.7	48.3	47.9	47.7	45.4	11.84
Other Transportation.....	47.7	48.0	48.2	48.2	47.1	47.7	47.8	47.5	46.8	1.89
Commerce and Trade.....	47.3	48.3	47.5	47.6	48.0	48.6	47.8	48.3	48.4	0.62 ^d
Wholesale.....	49.5	50.7	50.5	49.9	49.9	51.5	50.4	49.8	49.9	0.20
Retail.....	46.5	47.3	46.4	46.8	47.3	47.7	46.7	47.8	47.8	0.65 ^d
All Factories.....	49.4	48.8	49.0	47.2	44.2	44.4	44.4	45.5	45.7	10.53
Food, Drink, and Tobacco.....	48.2	48.7	49.4	49.4	48.8	48.5	48.8	49.1	47.8	2.05
Lumber and Its Products.....	48.4	49.0	48.7	47.7	44.7	46.8	46.2	46.7	48.0	7.64
Metals and Metal Products ^a	51.0	50.0	50.5	48.3	44.1	42.9	42.8	44.1	46.4	16.08
Paper and Printing.....	48.0	48.0	48.2	48.1	46.3	45.8	44.3	45.9	45.0	8.09
Mineral Products ^b	48.8	48.9	48.3	47.6	45.3	46.9	46.4	47.5	47.2	7.36
Textile and Leather Products ^c	46.2	45.8	45.4	43.2	42.4	45.1	45.1	46.3	43.3	8.23

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Increase—minimum for corresponding quarters.

• Enterprises are classified upon the basis of the number of employees at work in the first quarter of 1920.

out feeling that the night had scarcely begun, and the late evenings when he milked the cows by the light of a lantern.

Have times changed and is the city man right who dreams of easy life on an idyllic farm, or do the farmers still toil early and late as in former years? The question is partially answered by Tables XLI and XLII.

The first of these tables show that the average farm-hand working by the month now puts in something over 55 hours in winter and 60 hours in summer during each week that he is employed. The day worker, however, has a much easier time, for he, as a rule, works nearly ten hours less per week. In the North, the man working by the month still labors from 62 to 66 hours per week in summer, which means a ten-hour day for six days besides part time on Sunday. The day hand in the same section, even in the busiest season, works less than nine hours a day and has Sunday off.

The old saying that "man works from sun to sun but a woman's work is never done" is belied by the figures in Table XLII, for they show that the hired girl working by the week puts in from one to five hours less per week than does the hired man working by the month and that the female employed by the day works about one-sixth less time than the male day worker.

Another point of interest is the fact that male employees on Southern farms work much shorter hours than do hired men in the North, the difference being most marked in summer, when it amounts in general to at least 10 hours per week. Whether this difference is due to climate or to the racial characteristics of the employees is a point upon which our data throw no light.

On the whole, the figures seem to indicate that the short hours prevailing in the city have brought about somewhat similar hours for day workers in the country but that the typical "hired man"—that is the one who works by the month—still puts in much longer hours in summer than does the city worker and that, even in the winter, if he remains employed, he works for more hours than are required in most urban occupations.

Averages, at best, can give only a condensed picture. In order, therefore, to get a better view of working conditions on the farm, Tables XLIII to L have been prepared. These are frequency tables showing the number of employees working each specified number of hours per week. The situation of the different classes of workers in the second quarter of 1921 is shown in Chart 8. This quarter was chosen because it is recent and because the second quarter is a period devoted to a rather steady type of farm work and hence the statistics are not so likely to be vitiated by errors arising from the fact that the reporting farmers could not compute dependable averages from their recollections of the irregular work done at harvest time. The fact should be noted that the scale for females is ten times as large as that

TABLE XLI

AVERAGE HOURS WORKED PER WEEK BY HIRED MALE EMPLOYEES WHILE EMPLOYED ON THE FARMS OF THE UNITED STATES

FORM OF CONTRACT	NUMBER OF FARMS REPORTING	SECTION	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY THE MONTH	6,348	United States	55.3	58.9	60.0	56.5	55.3	58.8	60.5	56.6	55.2
	585	New England	63.4	64.8	64.4	62.3	63.4	63.9	65.9	63.3	63.6
	403	Middle Atlantic	60.7	62.4	63.1	61.1	60.5	62.3	66.0	60.9	60.1
	1,138	East North Central	57.5	61.5	62.7	59.3	56.4	61.0	62.6	58.6	56.6
	1,419	West North Central	57.6	63.4	64.5	59.7	57.7	63.3	64.4	60.7	57.6
	710	South Atlantic	49.2	53.6	54.2	50.7	50.6	53.4	55.3	51.4	49.8
	768	East South Central	50.6	53.1	54.4	51.0	50.2	53.9	55.6	50.6	50.1
	658	West South Central	52.2	54.2	58.1	54.4	51.1	54.8	54.6	51.8	52.5
	407	Mountain	55.6	58.1	57.6	55.9	54.3	58.0	57.2	55.5	54.5
	260	Pacific	57.9	59.9	60.7	58.4	58.0	60.0	60.8	58.4	57.7
WORKING BY THE DAY	5,978	United States	47.2	47.9	50.7	47.5	45.3	48.4	50.9	47.4	45.4
	542	New England	52.4	50.9	52.3	49.2	49.3	51.3	50.4	49.5	47.8
	363	Middle Atlantic	44.8	47.1	52.7	48.7	46.4	49.7	50.6	49.6	47.2
	1,066	East North Central	41.9	47.4	49.2	45.2	40.5	48.0	50.6	44.9	46.1
	1,351	West North Central	48.0	51.6	49.5	50.9	53.5	50.8	54.4	48.8	45.9
	677	South Atlantic	50.9	46.5	48.7	45.9	43.7	46.0	47.6	45.8	44.5
	708	East South Central	41.6	42.4	46.8	43.3	40.3	44.7	46.2	43.6	42.0
	615	West South Central	43.4	46.7	50.1	45.6	44.4	46.9	50.9	44.4	44.4
	396	Mountain	50.6	53.7	54.5	56.6	50.0	54.2	52.7	53.8	49.4
	260	Pacific	52.8	53.4	55.8	52.2	52.5	53.0	56.0	52.0	51.9

TABLE XLII

AVERAGE HOURS WORKED PER WEEK BY HIRED FEMALE WORKERS WHILE EMPLOYED ON THE FARMS OF THE UNITED STATES

FORM OF CONTRACT	NUMBER OF FARMS REPORTING	SECTION	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY THE WEEK	5,687	United States	53.2	54.9	54.4	54.1	52.2	55.1	55.3	52.9	54.9
	506	New England	61.6	61.0	55.5	60.9	60.7	60.2	59.7	60.4	60.9
	327	Middle Atlantic	54.6	56.0	52.8	55.0	41.6	56.5	54.0	42.6	56.7
	978	East North Central	53.5	55.1	55.7	53.6	53.5	55.1	55.9	51.3	53.4
	1,280	West North Central	61.5	61.0	60.4	61.4	59.1	61.0	59.6	59.7	60.1
	619	South Atlantic	45.9	48.2	49.3	47.2	47.6	48.8	49.9	48.2	48.7
	685	East South Central	49.1	50.8	51.4	50.3	49.7	52.3	51.2	48.9	51.2
	656	West South Central	46.5	50.2	49.4	48.3	46.5	50.2	50.8	49.1	53.1
	392	Mountain	63.0	62.2	60.6	61.7	61.6	60.8	61.4	66.7	65.7
	244	Pacific	58.6	60.9	59.0	61.1	61.1	61.8	60.8	59.2	59.7
WORKING BY THE DAY	5,629	United States	41.5	39.8	42.4	41.1	38.8	40.4	42.3	40.4	37.9
	513	New England	47.6	46.7	51.9	47.4	46.5	47.3	49.9	46.2	42.9
	322	Middle Atlantic	39.8	36.7	42.3	51.4	37.3	37.7	42.7	38.9	33.5
	966	East North Central	46.8	45.9	42.8	44.8	46.0	44.9	44.9	43.3	44.1
	1,252	West North Central	50.6	52.6	57.4	53.4	52.2	53.0	56.3	51.9	49.3
	616	South Atlantic	40.8	34.9	34.6	35.8	33.4	37.7	33.7	35.4	36.0
	668	East South Central	34.6	35.6	35.6	35.0	33.3	26.0	36.3	35.8	34.4
	656	West South Central	44.0	43.8	45.0	44.9	45.4	42.0	42.6	45.1	36.7
	392	Mountain	51.8	50.8	53.2	49.5	51.6	51.5	50.8	48.0	51.5
	244	Pacific	50.3	50.4	51.8	50.0	50.6	50.4	52.9	48.1	45.3

Chart 8

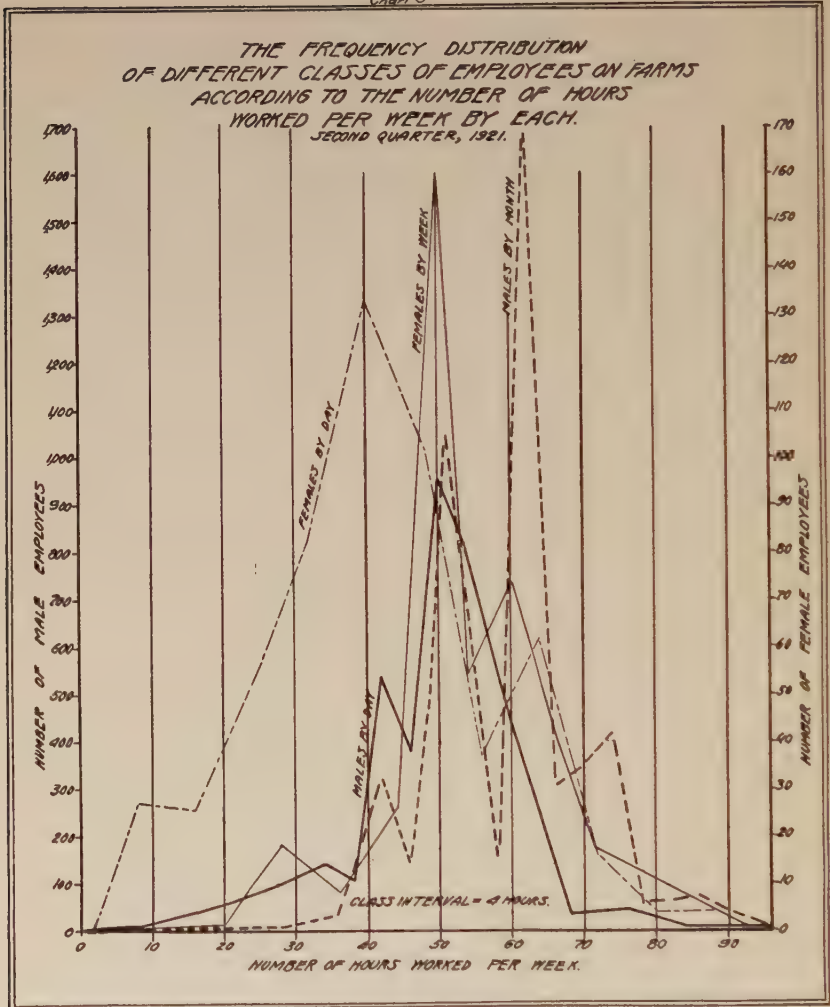


TABLE XLIII

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY ALL
MALE AGRICULTURAL WORKERS HIRED BY THE MONTH**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

HOURS WORKED PER WEEK	NUMBER OF MALE EMPLOYEES								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
Under 24	18	11	21	32	15	22	27	38	20
24 but under 32	32	90	38	31	76	102	13	35	91
32 " " 40	40	113	75	44	71	117	67	36	63
40 " " 44	44	446	353	206	377	430	326	211	362
44 " " 48	48	146	138	113	138	139	107	120	132
48 " " 50	50	350	287	301	319	351	263	273	280
50 " " 52	52	539	528	708	637	518	523	675	594
52 " " 56	56	522	681	638	617	489	665	656	649
56 " " 60	60	113	148	167	151	103	155	134	133
60 " " 64	64	1,028	1,669	1,873	1,284	994	1,682	1,888	1,255
64 " " 68	68	164	315	379	263	152	302	381	257
68 " " 72	72	227	343	400	260	225	347	375	253
72 " " 76	76	244	492	552	283	257	425	569	262
76 " " 80	80	38	60	82	44	39	60	81	43
80 " " 84	84	29	59	82	44	71	61	82	46
84 " " 88	88	44	76	88	61	0	72	87	58
88 " " 92	92	25	40	51	29	21	41	53	42
92 " " 100	100	13	22	30	17	12	21	27	16
100 " " 112	112	10	12	18	9	13	10	12	8
Total	4,159	5,347	5,784	4,712	4,047	5,194	5,709	4,570	4,017

for males. This arrangement has been made in order to bring out more clearly the comparative shapes of the frequency polygons.

The chart presented shows that each class of workers has a clearly dominant mode and that there is a secondary mode only in the case of males employed by the month. The principal modes are approximately as follows:

Females employed by the day	40 hours
Females employed by the week	50 hours
Males employed by the day	50 hours
Males employed by the month	63 hours

The dispersion is greatest in the case of females hired by the day, while females working by the week and males employed by the day show rather marked concentration about the mode. The reason for the wide dispersion

TABLE XLIV

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY MALE
AGRICULTURAL WORKERS HIRED BY THE MONTH**

BY CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

HOURS WORKED PER WEEK	NUMBER OF MALE EMPLOYEES IN THIRD QUARTER OF 1920				
	New England and Middle Atlantic	North Central	The South	Mountain	Pacific
Under 24	1	0	20	0	0
24 but under 32	1	0	27	1	2
32 " " 40	1	2	40	0	1
40 " " 44	3	30	166	8	0
44 " " 48	3	15	93	1	1
48 " " 50	35	65	84	94	23
50 " " 52	58	122	493	23	11
52 " " 56	164	93	248	69	65
56 " " 60	83	25	25	25	10
60 " " 64	335	646	595	132	166
64 " " 68	112	125	104	36	2
68 " " 72	155	158	47	32	8
72 " " 76	117	259	112	23	41
76 " " 80	31	41	0	4	6
80 " " 84	30	38	10	2	1
84 " " 88	39	41	3	5	0
88 " " 92	13	30	3	2	3
92 " " 100	4	21	0	0	5
100 " " 112	8	4	6	0	0
Total.....	1,193	1,715	2,076	457	345
	NUMBER OF MALE EMPLOYEES IN THIRD QUARTER OF 1921				
Under 24	1	0	26	0	0
24 but under 32	1	0	31	1	2
32 " " 40	2	3	30	0	1
40 " " 44	4	35	163	9	0
44 " " 48	2	16	88	1	0
48 " " 50	37	62	78	83	14
50 " " 52	79	111	437	41	7
52 " " 56	159	93	257	67	80
56 " " 60	66	26	26	10	6
60 " " 64	358	610	590	140	189
64 " " 68	112	132	100	35	3
68 " " 72	153	142	44	29	8
72 " " 76	119	296	86	22	46
76 " " 80	32	40	2	1	6
80 " " 84	25	44	10	3	0
84 " " 88	48	36	3	1	0
88 " " 92	18	31	3	0	1
92 " " 100	1	19	0	0	7
100 " " 112	6	0	6	0	0
Total.....	1,223	1,696	1,980	443	370

TABLE XLV

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY ALL
MALE AGRICULTURAL WORKERS HIRED BY THE DAY**

BY CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

HOURS WORKED PER WEEK	NUMBER OF MALE EMPLOYEES								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
Under 16	39	31	46	49	50	29	65	40	51
16 but under 24	118	104	174	99	107	110	109	108	109
24 " " 32	219	214	188	238	253	200	208	211	222
32 " " 36	151	149	126	151	145	146	127	143	171
36 " " 40	134	126	134	106	98	104	139	133	115
40 " " 44	421	544	636	570	445	534	578	576	507
44 " " 48	210	352	387	361	155	374	386	347	202
48 " " 52	710	952	1,014	1,137	676	960	1,350	1,041	747
52 " " 56	459	697	1,099	668	489	784	1,069	687	470
56 " " 64	407	859	2,152	664	305	875	1,912	666	359
64 " " 72	26	64	222	47	23	65	194	107	39
72 " " 80	38	56	184	43	33	82	185	11	27
80 " " 88	6	15	40	10	6	11	32	3	5
88 " " 96	3	5	6	5	3	13	8	5	3
96 " " 104	1	3	3	1	1	1	4	1	1
Total.....	2,942	4,171	6,411	4,149	2,789	4,288	6,366	4,079	3,028

in the case of female day workers is doubtless that many of them are engaged for odd jobs which do not require an entire day to complete.

Table XLIII shows that, for hired men working by the month, the 60 to 64 hours per week class was the modal one for all nine quarters studied; and the dispersion appears to remain much the same throughout the entire period. According to Table XLIV, the modal number of hours worked in the third quarter was the same in all sections of the United States and did not change from 1920 to 1921. The dispersion is, however, much greater in the South than in other sections of the country. The skewness in the North Central and Northeastern regions is distinctly to the right, while in the South and in the Rocky Mountain sections it is just as definitely toward the shorter numbers of hours.

The modal number of hours worked per week by male agricultural workers hired by the day remains in the 48 to 52 class in every quarter except the third. In that quarter of each year it rose into the 56 to 64 hour class. This rise presumably represents the harvest rush when day workers put in much longer hours.

By studying the comparison of the different sections of the United States

TABLE XLVI

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY ALL
MALE AGRICULTURAL WORKERS HIRED BY THE DAY**

By Crop Reporters of the United States Department of Agriculture

HOURS WORKED PER WEEK	NUMBER OF MALE EMPLOYEES IN THE THIRD QUARTER OF 1920				
	New England and Middle Atlantic	North Central	The South	Mountain	Pacific
Under 16	4	21	21	0	0
16 but under 24	15	27	131	1	0
24 " " 32	28	53	85	19	4
32 " " 36	21	27	68	2	8
36 " " 40	33	8	76	6	10
40 " " 44	81	147	395	13	0
44 " " 48	164	75	132	14	2
48 " " 52	133	396	286	86	113
52 " " 56	451	148	244	96	159
56 " " 64	409	581	797	105	258
64 " " 72	39	63	41	42	36
72 " " 80	8	88	63	18	6
80 " " 88	0	29	2	8	0
88 " " 96	3	3	0	0	0
96 " " 104	0	3	0	0	0
Total.....	1,389	1,669	2,341	410	596
HOURS WORKED PER WEEK	NUMBER OF MALE EMPLOYEES IN THE THIRD QUARTER OF 1921				
	New England and Middle Atlantic	North Central	The South	Mountain	Pacific
Under 16	6	27	24	8	0
16 but under 24	24	25	57	3	0
24 " " 32	24	74	95	15	0
32 " " 36	28	25	66	0	8
36 " " 40	42	10	71	6	10
40 " " 44	75	93	387	19	4
44 " " 48	138	86	129	27	5
48 " " 52	141	313	709	79	107
52 " " 56	486	125	212	90	156
56 " " 64	407	708	426	142	229
64 " " 72	33	51	46	14	51
72 " " 80	9	106	53	12	6
80 " " 88	1	21	2	8	0
88 " " 96	4	4	0	0	0
96 " " 104	0	3	0	0	0
Total.....	1,418	1,671	2,277	423	576

TABLE XLVII

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY ALL
FEMALE EMPLOYEES HIRED BY THE WEEK**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

HOURS WORKED PER WEEK	NUMBER OF FEMALE EMPLOYEES								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
Under 16	0	0	1	0	0	0	2	2	2
16 but under 24	22	3	3	5	35	3	3	18	20
24 " " 32	29	39	29	39	31	36	30	16	24
32 " " 40	30	28	16	15	15	16	18	25	17
40 " " 48	56	53	87	59	49	52	64	37	44
48 " " 52	135	142	151	150	142	159	197	132	149
52 " " 56	55	54	41	51	51	54	50	51	67
56 " " 64	102	153	172	114	94	147	167	126	102
64 " " 72	56	74	81	60	55	64	78	90	71
72 " " 80	25	34	36	28	21	35	35	3	8
80 " " 88	14	15	22	15	14	15	21	19	19
88 " " 96	5	6	1	2	2	2	3	2	3
96 " " 104	6	8	6	8	8	1	7	6	6
Total.....	535	609	646	546	517	584	675	527	532

made in Table XLVI, we find that, in the third quarter of each year, the mode was 56 to 64 hours in all sections except New England and the Middle Atlantic States, where it apparently is slightly below 56 hours. The skewness in every part of the country is strongly in the direction of the shorter hours.

The distribution of "hired girls" working by the week is shown by Table XLVII to be definitely bimodal in each of the nine quarters. The most common number of hours for them to work is about 50, but nearly as many are busy for approximately 60 hours per week. The dispersion does not appear to vary greatly from season to season.

Table XLVIII brings out the fact that, in the harvest season of 1920, females employed by the week on the farms of the Upper Mississippi Valley and in the northeastern part of the United States usually worked from 56 to 64 hours per week, while those in the South having similar duties worked only 48 to 52 hours weekly. In 1921, however, there was a distinct slackening of effort in the New England and Middle Atlantic group, so that 50 hours became almost as common a work period as the 60 hours which had prevailed the year before. The records for the other geographical sections do not show much difference between the two years. The data for the Rocky Mountain and Pacific divisions are too scanty to serve as a basis for dependable conclusions.

TABLE XLVIII

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY
FEMALE EMPLOYEES HIRED BY THE WEEK**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

HOURS WORKED PER WEEK	NUMBER OF FEMALE EMPLOYEES IN THIRD QUARTER OF 1920				
	New England and Middle Atlantic	North Central	The South	Mountain	Pacific
Under 16	1	0	0	0	0
16 but under 24	0	1	2	0	0
24 " " 32	0	1	28	0	0
32 " " 40	2	4	10	0	0
40 " " 48	10	23	49	2	3
48 " " 52	26	33	79	9	4
52 " " 56	12	11	17	0	0
56 " " 64	55	62	40	7	8
64 " " 72	33	24	13	4	7
72 " " 80	5	21	4	5	0
80 " " 88	8	6	4	2	1
88 " " 96	1	0	0	0	0
96 " " 104	0	2	3	1	0
Total.....	153	188	249	30	23
HOURS WORKED PER WEEK	NUMBER OF FEMALE EMPLOYEES IN THIRD QUARTER OF 1921				
	New England and Middle Atlantic	North Central	The South	Mountain	Pacific
Under 16	1	1	0	0	0
16 but under 24	0	1	2	0	0
24 " " 32	0	1	29	0	0
32 " " 40	1	6	10	1	0
40 " " 48	6	24	30	1	3
48 " " 52	53	29	99	10	6
52 " " 56	19	12	14	5	0
56 " " 64	47	56	48	7	7
64 " " 72	36	18	13	4	8
72 " " 80	5	20	4	5	0
80 " " 88	7	5	4	2	3
88 " " 96	1	2	0	0	0
96 " " 104	0	3	3	1	0
Total.....	176	178	256	36	27

TABLE XLIX

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY
FEMALE EMPLOYEES HIRED BY THE DAY**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

HOURS WORKED PER WEEK	NUMBER OF FEMALE EMPLOYEES								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
Under 4	1	1	1	1	1	1	1	1	1
4 but under 12	50	51	50	54	60	54	54	59	61
12 " " 20	34	67	62	42	39	51	58	51	46
20 " " 28	98	140	116	134	112	105	109	109	144
28 " " 36	104	153	200	111	73	167	193	92	93
36 " " 44	101	263	271	233	93	266	229	183	97
44 " " 52	131	234	354	263	128	204	324	192	140
52 " " 60	73	102	151	99	57	74	143	126	51
60 " " 68	163	106	145	111	90	123	126	107	94
68 " " 76	25	31	45	29	23	32	40	26	25
76 " " 84	6	6	9	3	4	7	10	7	6
84 " " 92	12	11	18	9	13	10	20	8	9
92 " " 100	0	1	2	0	0	1	2	0	0
100 " " 108	1	1	1	1	1	1	1	3	1
Total	799	1,167	1,425	1,090	694	1,096	1,310	964	768

The most common working time per week for female employees hired by the day on the farms of the United States is about 44 hours. The general tendency is to work fewer hours in the second quarter of the year than in any other season. The wide dispersion noted in connection with Chart 8 is shown by Table XLIX to continue through all quarters of the period studied. Table L shows that this distribution among many classes is due to the fact that conditions in regard to the hours of women working by the day vary widely in different parts of the country. In the northeastern part of the United States the modal time worked tends to be around 52 hours per week. In the North Central region the most common hours for female day workers were about 64 in 1920 and either 48 or 64 in 1921. In the Rocky Mountain and Pacific Divisions this class of employees put in somewhat less time, normally working about 48 hours weekly; but it is in the South that the largest difference from the average occurs, the modal period there being only about 40 hours per week. Again we see that, for some reason the farm employees of the South put in distinctly fewer hours per week than do those in the higher latitudes of the United States.

TABLE L

**FREQUENCY DISTRIBUTION OF THE HOURS WORKED PER WEEK BY
FEMALE EMPLOYEES HIRED BY THE DAY**

By Crop Reporters of the United States Department of Agriculture

HOURS WORKED PER WEEK	NUMBER OF FEMALE EMPLOYEES IN THE THIRD QUARTER OF 1920				
	New England and Middle Atlantic	North Central	The South	Mountain	Pacific
Under 4	0	0	1	0	0
4 but under 12	9	9	29	1	1
12 " " 20	3	5	53	0	0
20 " " 28	19	4	94	0	0
28 " " 36	29	6	160	1	4
36 " " 44	20	20	224	3	4
44 " " 52	94	30	177	15	39
52 " " 60	97	13	31	2	8
60 " " 68	17	42	58	8	19
68 " " 76	4	17	17	3	4
76 " " 84	2	3	2	2	0
84 " " 92	7	8	0	1	2
92 " " 100	0	1	0	0	1
100 " " 108	0	1	0	0	0
Total.....	301	159	846	36	82
NUMBER OF FEMALE EMPLOYEES IN THE THIRD QUARTER OF 1921					
Under 4	0	0	1	0	0
4 but under 12	9	8	34	2	1
12 " " 20	6	8	44	0	0
20 " " 28	21	3	84	0	0
28 " " 36	21	5	166	0	0
36 " " 44	34	12	175	4	4
44 " " 52	102	35	133	18	35
52 " " 60	88	12	29	4	9
60 " " 68	16	38	61	6	5
68 " " 76	5	14	13	4	4
76 " " 84	2	3	3	2	0
84 " " 92	7	8	0	1	4
92 " " 100	0	1	0	0	1
100 " " 108	0	1	0	0	0
Total.....	311	148	743	41	63

CHAPTER V

THE EARNINGS OF EMPLOYEES

TOTAL WAGES AND SALARIES

Since the majority of our inhabitants depend upon wages or salaries as the chief source of income, investigations in this field are of perennial interest. Tables LI to LIV show the approximate totals of wage and salary payments in the United States as computed on the basis of reports furnished by some nine thousand employers scattered over the United States. Unfortunately these figures are subject to error from several sources. For only a few of the industrial fields does the Bureau of the Census ascertain the numbers of employees; hence it has been necessary to fill these gaps by estimates. Some, and perhaps many, of the informants failed to include in their reports the salaries of managerial officers, and, in a number of cases, the office forces are known to have been omitted from consideration. In other instances the reverse was true, and records were furnished only for employees working at the administrative offices of the company. In view of these conditions it is probable that the totals for the various industries are not highly accurate, and, in the case of those industrial groups in which the samples were very small, the errors may be relatively large.

The chances are, nevertheless, that the totals, as given, indicate fairly well the order of magnitude of the payments made to employees in each of the specified groups. The figures show that, during the 1920 boom, enterprises employing fewer than 21 persons paid out about two-sevenths of the aggregate disbursements made by all employers for wages and salaries; concerns employing 21 to 100 persons disbursed about one-seventh of the total; and the larger sized plants accounted for the remaining four-sevenths. By the third quarter of 1921 the respective shares, stated in the order named, had changed to about one-third, one-sixth, and one-half. If the industrial groups, as classified, are ranked according to the totals of their payments to employees, factories turning out metals and their derivatives, vehicles, and miscellaneous products are far in the lead, while purveyors of public and professional service, factories dealing with textiles and leather, steam railways, retail mercantile establishments, enterprises supplying domestic and personal service, and concerns engaged in building and construction follow in the sequence listed.

Table LI indicates that wage and salary payments in 1920 amounted to

TABLE LI

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL QUARTERLY WAGES AND SALARIES PAID
TO ALL EMPLOYEES BY ALL ENTERPRISES OF WHATEVER SIZE**

INDUSTRY	MILLIONS OF DOLLARS PAID TO EMPLOYEES								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	9,463	10,048	10,472	9,905	8,381	8,114	8,047	8,055	7,743	23.16
Agriculture.....	216	323	483	316	201	279	390	250	181	19.25
Extraction of Minerals.....	477	488	548	540	465	423	396	364	349	36.31
Building and Construction.....	528	656	684	553	446	495	573	575	549	24.54
Other Hand Trades.....	180	193	190	195	183	192	189	193	186	1.02
Finance.....	156	161	168	173	169	165	164	169	165	5.20
Public and Professional Service.....	964	960	912	1,046	1,062	1,002	951	1,124	1,117	4.27 ^d
Domestic and Personal Service.....	666	690	700	695	678	678	672	661	643	8.15
All Transportation.....	1,197	1,341	1,512	1,458	1,170	1,119	1,087	1,111	1,005	28.11
Steam Railways.....	811	921	1,073	1,002	772	713	679	691	628	36.72
Other Transportation.....	386	420	440	456	398	406	408	420	377	7.27
Commerce and Trade.....	828	854	862	887	829	830	823	839	795	5.41
Wholesale.....	100	105	107	106	96	99	98	95	88	17.75
Retail.....	728	749	756	781	734	731	725	744	707	4.74
All Factories.....	4,252	4,382	4,410	4,042	3,176	2,929	2,802	2,769	2,752	37.60
Food, Drink, and Tobacco.....	343	343	359	368	297	279	299	288	257	30.16
Lumber and Its Products.....	331	364	361	321	275	296	290	273	267	19.66
Metals and Metal Products ^a	2,176	2,223	2,246	2,004	1,405	1,142	988	970	1,060	56.85
Paper and Printing.....	240	249	254	272	244	238	232	248	237	8.82
Mineral Products ^b	303	317	334	335	283	265	260	254	248	25.97
Textile and Leather Products ^c	859	887	856	742	673	708	733	737	683	24.12

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Increase—minimum for corresponding quarters.

TABLE LII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL QUARTERLY WAGES AND SALARIES PAID TO ALL EMPLOYEES BY ALL ENTERPRISES HAVING FEWER THAN 21^c EMPLOYEES

INDUSTRY	MILLIONS OF DOLLARS PAID TO EMPLOYEES								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	2,618	2,831	3,026	2,850	2,574	2,680	2,896	2,732	2,604	5.33
Agriculture.....	190	286	449	281	172	251	364	226	162	19.57
Extraction of Minerals.....	16	19	18	18	16	24	25	20	16	11.11
Building and Construction.....	174	211	232	207	150	169	215	218	204	19.91
Other Hand Trades.....	99	106	105	105	100	103	101	101	98	3.81
Finance.....	63	64	66	69	68	69	69	72	70	4.35 ^a
Public and Professional Service.....	540	528	525	519	543	499	542	535	574	5.49
Domestic and Personal Service.....	438	456	465	454	443	447	449	431	418	5.64
All Transportation.....	134	145	146	167	130	139	140	161	128	4.14
Steam Railways.....	..	..	..	..	..	..	..	..	..	..
Other Transportation.....	134	145	146	167	130	139	140	161	128	4.14
Commerce and Trade.....	546	562	564	578	557	558	556	563	541	2.87
Wholesale.....	19	20	20	20	20	20	19	19	19	5.00
Retail.....	527	543	545	557	537	539	537	543	523	2.61
All Factories.....	418	455	454	453	395	421	434	406	392	10.38
Food, Drink, and Tobacco.....	72	80	69	87	72	78	87	78	72	17.24
Lumber and Its Products.....	154	172	170	154	129	145	136	123	118	20.13
Metals and Metal Products ^a	41	45	54	48	41	38	44	40	36	33.33
Paper and Printing.....	66	67	66	71	70	71	70	76	69	1.43
Mineral Products ^b	36	40	43	50	40	42	44	44	42	12.00
Textile and Leather Products ^c	49	50	51	43	43	47	53	45	54	12.24

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Increase—minimum for corresponding quarters.^e Based upon number of employees in first quarter of 1920.

TABLE LIII

**AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL QUARTERLY WAGES AND SALARIES PAID
TO ALL EMPLOYEES IN ALL ENTERPRISES HAVING 21 TO 100^c EMPLOYEES**

INDUSTRY	MILLIONS OF DOLLARS PAID TO EMPLOYEES								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	1,445	1,569	1,650	1,606	1,447	1,436	1,386	1,387	1,311	20.55
Agriculture.....	18	28	22	23	20	20	18	17	16	28.57
Extraction of Minerals.....	71	56	64	72	64	60	48	34	31	5.69
Building and Construction.....	157	213	250	222	209	201	190	185	163	24.00
Other Hand Trades.....	49	46	47	50	46	46	46	49	45	8.16
Finance.....	42	44	47	52	50	51	49	53	51	1.92 ^d
Public and Professional Service.....	155	158	163	154	148	152	161	160	152	4.52
Domestic and Personal Service.....	161	164	160	165	161	158	151	152	154	8.48
All Transportation.....	67	74	80	79	71	70	70	66	64	20.00
Steam Railways.....	67	74	80	79	71	70	70	66	64	20.00
Other Transportation.....	130	133	137	140	130	129	126	130	124	8.03
Commerce and Trade.....	35	36	37	37	34	34	34	33	32	10.81
Wholesale.....	95	98	100	103	96	94	92	97	92	8.00
Retail.....	594	653	680	649	548	551	527	533	511	24.85
All Factories.....	79	82	92	95	74	73	74	78	68	28.42
Food, Drink, and Tobacco.....	83	98	96	78	67	72	74	68	70	26.53
Lumber and Its Products.....	88	116	136	127	88	70	59	64	75	56.62
Metals and Metal Products ^a	64	66	66	71	63	61	60	65	63	9.09
Paper and Printing.....	78	81	88	87	79	78	79	78	74	15.91
Mineral Products ^b	202	209	202	191	177	196	181	179	162	19.80
Textile and Leather Products ^c										

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Increase—minimum for corresponding quarters.

^e Based upon number of employees in first quarter of 1920.

TABLE LIV

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE TOTAL QUARTERLY WAGES AND SALARIES PAID TO ALL EMPLOYEES IN ALL ENTERPRISES HAVING OVER 100^c EMPLOYEES

INDUSTRY	MILLIONS OF DOLLARS PAID TO EMPLOYEES								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	5,400	5,647	5,796	5,448	4,359	3,998	3,765	3,936	3,829	35.04
Agriculture.....	7	9	12	11	9	8	8	6	3	66.67
Extraction of Minerals.....	389	413	466	450	386	339	323	310	301	35.41
Building and Construction.....	196	232	202	124	87	126	168	172	182	55.61
Other Hand Trades.....	33	41	38	40	37	43	42	43	43	4.88 ^d
Finance.....	51	53	55	52	52	46	46	44	44	20.00
Public and Professional Service.....	269	275	225	374	371	350	248	430	391	5.39 ^d
Domestic and Personal Service.....	67	71	75	76	74	73	72	71	71	6.58
All Transportation.....	996	1,121	1,286	1,212	968	910	877	884	814	36.70
Steam Railways.....	811	921	1,073	1,002	772	713	679	691	628	41.47
Other Transportation.....	185	200	213	210	196	197	198	193	185	8.10
Commerce and Trade.....	152	158	161	169	143	143	140	147	130	13.02
Wholesale.....	46	50	50	48	42	46	45	42	37	12.50
Retail.....	106	108	111	121	101	98	96	104	93	14.05
All Factories.....	3,240	3,275	3,277	2,940	2,233	1,958	1,842	1,830	1,849	44.16
Food, Drink, and Tobacco.....	192	181	198	187	151	128	137	132	117	39.06
Lumber and Its Products.....	94	95	95	89	79	79	80	81	79	16.84
Metals and Metal Products ^a	2,048	2,061	2,057	1,829	1,276	1,034	884	866	949	57.98
Paper and Printing.....	110	116	121	129	111	106	102	107	106	17.05
Mineral Products ^b	188	195	203	199	163	145	138	132	132	34.96
Textile and Leather Products ^c	608	627	603	508	453	465	499	512	467	27.75

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Increase—minimum for corresponding quarters.^e Based upon the number of employees in first quarter of 1920.

39,888 millions of dollars. Comparable figures derived from other sources are not, at present, available, but such facts as are at hand make this result seem reasonable.

Tables LI to LIV presumably portray much more accurately the changes occurring from quarter to quarter than they do the absolute quantities. In the case of industries furnishing a number of reports sufficient to make an adequate sample, it is probable that the seasonal and cyclical variations as shown are very near the truth. The figures indicate that the depression caused the smallest sized enterprises to reduce their total wage bills from the peak figure by only about 5 per cent, while concerns hiring over 100 workers each cut their payments by over one-third. The quarterly aggregate for the United States was lowered by more than two and one-half billions of dollars, or not quite one-fourth of the total paid at the peak in the third quarter of 1920. The industries showing the most striking declines in the amounts paid to employees were: first, factories making metals, metal products, vehicles, and miscellaneous goods; second, steam railways; and third, concerns engaged in the extraction of minerals. Enterprises rendering public and professional service actually increased their payments to employees; and concerns classified in the hand trades, finance, or retail merchandising reduced their total wage bills but slightly.

ANNUAL EARNINGS OF EMPLOYEES ATTACHED TO THE VARIOUS INDUSTRIES

The third quarter of 1920 was the busiest period during the 2¼ years covered by this study, and at that time the number of persons actually at work probably included most of those who were reported to the Census enumerators as "gainfully employed." During the other quarters studied it seems reasonable to assume that about the same number of persons were potential employees and that they considered themselves as attached to the industries in which they normally worked. The fact that during some of the quarters many were idle did not reduce the number of persons who derived their chief support from wage or salary payments. If, then, we wish to study changes in the welfare of the workers normally employed in the various industries, we must in every instance divide the total payments to employees among all attached to the industry and not merely among those at work, for if we were to use the number at work as the divisor, the results would indicate that unemployment had no effect on the welfare of the employed class—a conclusion manifestly absurd. Table LV, therefore, shows the average sum which the potential workers attached to the industry would have received had the total wage and salary payments made by the industry been distributed equally among them.

In some groups the number of reports received was too small to yield a

significant average. In others, however, the samples were adequate in number,¹ and the results as presented are presumably quite close to the truth.

The figures show that the average person normally working in an enterprise employing 20 persons or less received only \$44 less pay in 1921 than in 1920; the average employee who worked for a concern employing 21 to 100 persons at the same time lost \$132 from his annual pay envelope; while the worker employed in a still larger-sized plant saw his earnings diminish by \$432. However, despite the much heavier decline, the employee in the larger-scale plant still received in 1921 more dollars than did the worker in the small enterprise, but the employee in the medium-sized plant was, in that year, the most prosperous of all, for he then received over a hundred dollars larger income than either of the others.

The employees who, on the average, earned most in 1920 were (in order from largest down) those working in mines, on railways, in financial institutions, and in plants manufacturing metals and metal products. In 1921, by contrast, the last mentioned class had the lowest earnings of any except farm laborers, who received the least pay in both years. The low earnings of employees in domestic and personal service are accounted for largely by failure to include allowances for board and lodging in their reported pay,² and by the large number of female workers in this class.

Much greater reliance can undoubtedly be placed upon the totals for considerable groups than upon the individual items in the table, but in general, the figures show enough consistency to lead to the conclusion that a relatively small proportion of these items are widely in error.

The data presented in the preceding pages have all been obtained from the records furnished by employers. It is perhaps worth while to insert for purposes of comparison Table LVI, which shows average quarterly earnings of employees in different industries as reported by the workers themselves. These figures purport to record the actual pay received, and hence it is unnecessary to make any deductions from them for losses due to unemployment. As is made evident by the second column of the table, the number of persons reporting is too small in most industries to furnish a dependable sample; nevertheless, there are certain indications which are of interest.

Female employees show earnings about three-fourths as large as those of the males. The earnings of both sexes declined noticeably between the spring of 1920 and the winter of 1921-1922. Males in finance show a gain—a peculiarity which parallels the exception shown for this industry by the tables derived from records furnished by employers. Agricultural and

¹ For the number of complete reports received from each class, see Table I.

² Farmers were the only class of employers who were asked to include in their wage records allowances for board, lodging, etc., furnished to employees.

TABLE LV

**THE AVERAGE AMOUNTS DISBURSED AS WAGES AND SALARIES IN 1920 AND
IN 1921 PER PERSON EMPLOYED IN THE INDUSTRY IN THE
THIRD QUARTER OF 1920^a**

INDUSTRY	YEAR	IN ENTERPRISES EMPLOYING THE GIVEN NUMBER OF PERSONS IN THE FIRST QUARTER OF 1920			
		Any number	20 or under	21-100	Over 100
All Industries	1920	\$1,367	\$1,121	\$1,354	\$1,544
	1921	1,117	1,077	1,222	1,112
Agriculture	1920	582	569	710	781
	1921	486	478	575	614
Extraction of Minerals	1920	1,832	1,179	1,880	1,868
	1921	1,471	1,400	1,465	1,477
Building and Construction	1920	1,519	1,445	1,589	1,510
	1921	1,306	1,319	1,481	1,105
Other Hand Trades	1920	1,380	1,482	1,202	1,382
	1921	1,377	1,442	1,171	1,511
Finance	1920	1,645	1,748	1,847	1,407
	1921	1,669	1,852	2,029	1,247
Public and Professional Service	1920	1,294	1,320	1,572	1,142
	1921	1,380	1,325	1,553	1,399
Domestic and Personal Service	1920	976	944	1,083	963
	1921	954	922	1,050	966
All Transportation	1920	1,610	1,482	1,365	1,648
	1921	1,312	1,427	1,263	1,300
Steam Railways	1920	1,730	..	..	1,730
	1921	1,298	..	..	1,298
Other Transportation	1920	1,394	1,482	1,365	1,347
	1921	1,338	1,427	1,263	1,306
Commerce and Trade	1920	1,320	1,364	1,352	1,164
	1921	1,278	1,354	1,286	1,042
Wholesale	1920	1,394	1,585	1,453	1,292
	1921	1,293	1,559	1,351	1,166
Retail	1920	1,310	1,357	1,318	1,115
	1921	1,276	1,348	1,265	996
All Factories	1920	1,503	1,309	1,321	1,580
	1921	1,027	1,218	1,107	975
Food, Drink, and Tobacco	1920	1,261	1,026	1,241	1,403
	1921	1,038	1,050	1,070	1,015
Lumber and Its Products	1920	1,312	1,383	1,184	1,329
	1921	1,080	1,135	937	1,140
Metals and Metal Products^b	1920	1,663	1,340	1,112	1,723
	1921	866	1,168	670	875
Paper and Printing	1920	1,586	1,598	1,569	1,590
	1921	1,504	1,693	1,467	1,418
Mineral Products^c	1920	1,416	1,214	1,335	1,509
	1921	1,167	1,210	1,256	1,112
Textile and Leather Products^d	1920	1,365	1,375	1,519	1,318
	1921	1,163	1,337	1,383	1,085

^a The third quarter of 1920 represents the peak of employment for all industries combined.

^b Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^c Includes chemical, stone, glass, and clay products.

^d Includes clothing of all kinds.

TABLE LVI

**THE AVERAGE AMOUNTS EARNED PER QUARTER BY A SMALL NUMBER OF
REPORTING EMPLOYEES SCATTERED OVER THE CONTINENTAL
UNITED STATES**

SEX	AVERAGE NUMBER OF EM- PLOYEES REPORT- ING	INDUSTRY	1920	1921				1922
			March April May	March April May	June July Aug.	Sept. Oct. Nov.	Dec. Jan. Feb.	
MALE	436	All Industries.....	\$398	\$361	\$355	\$339	\$339	
	26	Agriculture.....	279	255	259	260	217	
	34	Extraction of Minerals.....	275	178	315	150	93	
	41	Building and Construction....	477	451	462	413	373	
	8	Other Hand Trades.....	408	346	366	379	357	
	15	Finance.....	385	402	439	367	409	
	29	Public and Professional Service	522	492	444	482	457	
	23	Domestic and Personal Service	363	295	283	291	293	
	57	Transportation.....	421	432	414	398	366	
	75	Commerce and Trade.....	394	351	332	337	327	
	120	Factories.....	419	375	342	336	310	
	8	Industry Unknown.....	182	153	218	188	132	
FEMALE	111	All Industries.....	\$274	\$270	\$240	\$252	\$237	
	1	Building and Construction....	342	380	380	371	360	
	4	Other Hand Trades.....	104	171	184	163	142	
	7	Finance.....	304	336	312	275	267	
	18	Public and Professional Service	386	391	292	349	353	
	21	Domestic and Personal Service	232	216	182	191	180	
	10	Transportation.....	277	242	247	242	262	
	21	Commerce and Trade.....	251	254	243	255	239	
	28	Factories.....	263	249	231	234	195	
	1	Industry Unknown.....	195	..	..	..	..	

factory workers report sharp reductions in earnings—a change which again corresponds to the evidence derived from the other type of returns. The earnings of miners are highly irregular, which agrees with information concerning this industry received from numerous extraneous sources. On the whole, therefore, it appears that even this very limited sample gives a rather good impressionistic picture of earnings in some of the leading industrial fields. The reader is warned, however, against accepting these figures as adequate, and he should not overlook the fact that, in a number of the industries listed, the reports received are too few in number to justify one in placing any reliance upon the results.

AVERAGE EARNINGS PER HOUR

Tables LVII to LX record the average earnings per hour of employees in different industries according to the reports of employers in those fields. One important caution is necessary in the interpretation of these reports. Average earnings per hour are likely to be affected much less by a cyclical depression than are wage rates for specific kinds of work. The reason for their greater stability is that, when the working force is reduced, the general rule is to retain the executives and "key men" in the organization. Under such circumstances, even though every man's wage or salary were cut sharply, the average earnings might rise; for the retention of the high salaried class and the dismissal of the low paid workers would tend to increase the average and offset the fall which would otherwise be occasioned by the lower price of labor. With this point in mind, we can safely proceed to a consideration of the tables.

Table LVII indicates that the cycle caused average earnings to fall materially only in the fields of agriculture, manufacturing, mining, and steam railways. Agriculture, although it laid off few workers, kept them employed at the expense of a sharp wage reduction. Enterprises employing 20 workers or less show almost the same average earnings in the first quarter of 1922 as two years earlier. The fall in average earnings is much more marked in the medium-sized than in the small concerns, but the maximum change occurs in the largest plants, for they show a reduction of just about one-eighth. Although there are numerous exceptions, earnings on the average increase with the size of the plant; hence it follows that the average employee, when working for the large concern, puts in fewer hours at higher pay per hour, but, in return for this extra compensation, he sacrifices much of the security of employment which he would have if he worked for a small enterprise.

Industries are strikingly different in the average rates that they pay for labor. Let us, for example, consider the first quarter of 1922. At that date farm employees earned on the average only 20 cents per hour. There certainly must have been marked advantages not apparent in the reported rate of pay that induced agricultural employees to work for that rate at the same time that employees in factories were getting 53 cents per hour, those on steam railways 67, those in mining 71, and those engaged in building and construction 73 cents for the same unit of time. At the same date employees in the financial field were receiving higher earnings than those in any other branch, but it is also probable that they were, on the average, more highly trained than those in a number of the other industries. Workers in the field of domestic and personal service are shown to have received pay much lower than in other lines, but the figures here presented are inaccurate in that they fail to include, in most cases, the board, room, tips, and other

TABLE LVII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE AVERAGE EARNINGS PER HOUR PER EMPLOYEE IN
ALL ENTERPRISES OF WHATEVER SIZE

INDUSTRY	AVERAGE EARNINGS IN DOLLARS PER HOUR ^d								MAXIMUM CYCLICAL DECLINE (Per Cent)
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries.....	0.53	0.55	0.55	0.56	0.54	0.52	0.51	0.51	8.93
Agriculture.....	0.24	0.26	0.30	0.27	0.23	0.22	0.25	0.22	18.52
Extraction of Minerals.....	0.74	0.75	0.78	0.80	0.79	0.77	0.74	0.71	11.25
Building and Construction.....	0.75	0.77	0.75	0.74	0.72	0.72	0.71	0.72	7.79
Other Hand Trades.....	0.51	0.51	0.53	0.53	0.52	0.51	0.51	0.52	3.77
Finance.....	0.67	0.68	0.71	0.74	0.72	0.73	0.73	0.76	2.70 ^e
Public and Professional Service.....	0.49	0.50	0.47	0.55	0.54	0.54	0.52	0.58	1.88 ^e
Domestic and Personal Service.....	0.34	0.35	0.34	0.34	0.34	0.34	0.33	0.33	5.71
All Transportation.....	0.57	0.62	0.65	0.65	0.65	0.64	0.60	0.60	7.69
Steam Railways.....	0.60	0.67	0.71	0.72	0.72	0.71	0.64	0.64	11.11
Other Transportation.....	0.52	0.53	0.54	0.54	0.54	0.54	0.54	0.53	1.85
Commerce and Trade.....	0.48	0.48	0.49	0.49	0.49	0.48	0.48	0.48	2.04
Wholesale.....	0.54	0.53	0.55	0.57	0.53	0.53	0.53	0.54	5.26
Retail.....	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.47	2.08
All Factories.....	0.60	0.61	0.61	0.62	0.59	0.57	0.56	0.54	14.52
Food, Drink, and Tobacco.....	0.51	0.52	0.48	0.52	0.52	0.50	0.48	0.46	11.54
Lumber and Its Products.....	0.51	0.52	0.52	0.54	0.52	0.49	0.49	0.48	11.11
Metals and Metal Products ^a	0.64	0.67	0.67	0.68	0.63	0.61	0.59	0.56	20.59
Paper and Printing.....	0.61	0.63	0.64	0.66	0.65	0.66	0.66	0.65	3.03
Mineral Products ^b	0.54	0.55	0.57	0.59	0.57	0.56	0.55	0.52	11.86
Textile and Leather Products ^c	0.58	0.60	0.60	0.60	0.57	0.55	0.56	0.54	10.00

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Rates of pay for any given work probably decline more in times of depression than do the average earnings, the latter being kept up by the retention of the more highly paid employees.

^e Increase—minimum for corresponding quarters.

TABLE LVIII

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE AVERAGE EARNINGS PER HOUR PER EMPLOYEE IN ALL ENTERPRISES HAVING FEWER THAN 21¹ EMPLOYEES

INDUSTRY	AVERAGE EARNINGS IN DOLLARS PER HOUR ^d								MAXIMUM CYCLICAL DECLINE (Per Cent)
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries.....	0.44	0.44	0.44	0.45	0.45	0.43	0.43	0.44	4.44
Agriculture.....	0.23	0.25	0.30	0.27	0.22	0.22	0.25	0.22	18.51
Extraction of Minerals.....	0.74	0.84	0.83	0.84	0.74	0.70	0.67	0.72	20.24
Building and Construction.....	0.70	0.69	0.69	0.70	0.67	0.65	0.67	0.69	5.80
Other Hand Trades.....	0.55	0.54	0.56	0.55	0.56	0.53	0.55	0.54	5.36
Finance.....	0.69	0.69	0.70	0.74	0.71	0.71	0.71	0.75	1.35 ^e
Public and Professional Service.....	0.50	0.49	0.48	0.53	0.52	0.52	0.55	0.54	1.89
Domestic and Personal Service.....	0.34	0.34	0.33	0.33	0.33	0.33	0.32	0.33	5.88
All Transportation.....	0.52	0.53	0.53	0.52	0.53	0.52	0.52	0.52	1.89
Steam Railways.....	0.52	0.53	0.53	0.52	0.53	0.52	0.52	0.52	1.89
Other Transportation.....	0.48	0.48	0.48	0.49	0.49	0.48	0.48	0.48	2.04
Commerce and Trade.....	0.61	0.61	0.61	0.62	0.61	0.60	0.60	0.59	3.23
Wholesale.....	0.48	0.48	0.48	0.49	0.48	0.48	0.48	0.48	2.04
Retail.....	0.55	0.54	0.50	0.56	0.55	0.52	0.52	0.54	3.70
All Factories.....	0.47	0.47	0.46	0.47	0.48	0.48	0.45	0.45	4.26
Food, Drink, and Tobacco.....	0.52	0.52	0.52	0.56	0.52	0.48	0.50	0.53	7.69
Lumber and Its Products.....	0.63	0.60	0.57	0.60	0.59	0.58	0.56	0.58	6.35
Metals and Metal Products ^a	0.64	0.63	0.64	0.65	0.63	0.64	0.64	0.64	3.12
Paper and Printing.....	0.48	0.49	0.49	0.53	0.50	0.49	0.49	0.50	7.55
Mineral Products ^b	0.68	0.64	0.61	0.66	0.72	0.62	0.64	0.68	3.12
Textile and Leather Products ^c									

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

^c Includes clothing of all kinds.

^d Rates of pay for any given work probably decline more in times of depression than do the average earnings, the latter being kept up by the retention of the more highly paid employees.

^e Increase—minimum for corresponding quarters.

^f Enterprises are classified according to the numbers employed in the first quarter of 1920.

TABLE LIX

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE AVERAGE EARNINGS PER HOUR PER EMPLOYEE IN ALL ENTERPRISES HAVING 21 TO 100^a EMPLOYEES

INDUSTRY	AVERAGE EARNINGS IN DOLLARS PER HOUR ^d								MAXIMUM CYCLICAL DECLINE (Per Cent)	
	1920				1921					
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter		
All Industries.....	0.53	0.55	0.56	0.56	0.55	0.55	0.54	0.53	0.52	7.14
Agriculture.....	0.24	0.29	0.25 ^e	0.29	0.26	0.25	0.23	0.22	0.20	31.03
Extraction of Minerals.....	0.82	0.78	0.78	0.78	0.75	0.72	0.67	0.58	0.58	29.27
Building and Construction.....	0.70	0.78	0.80	0.78	0.76	0.77	0.72	0.73	0.71	11.25
Other Hand Trades.....	0.46	0.44	0.46	0.47	0.44	0.43	0.44	0.46	0.44	8.51
Finance.....	0.75	0.77	0.79	0.86	0.83	0.84	0.82	0.87	0.85	1.16 ^f
Public and Professional Service.....	0.59	0.62	0.62	0.61	0.62	0.62	0.63	0.64	0.65	1.61 ^f
Domestic and Personal Service.....	0.34	0.36	0.37	0.37	0.36	0.36	0.36	0.36	0.35	5.41
All Transportation.....	0.48	0.50	0.51	0.52	0.51	0.50	0.49	0.48	0.47	9.62
Steam Railways.....										
Other Transportation.....	0.48	0.50	0.51	0.52	0.51	0.50	0.49	0.48	0.47	9.62
Commerce and Trade.....	0.50	0.52	0.53	0.53	0.52	0.52	0.52	0.52	0.51	3.77
Wholesale.....	0.55	0.57	0.58	0.59	0.56	0.57	0.57	0.57	0.56	3.39
Retail.....	0.49	0.50	0.52	0.51	0.51	0.50	0.50	0.50	0.50	3.85
All Factories.....	0.56	0.58	0.58	0.58	0.56	0.57	0.56	0.54	0.54	6.90
Food, Drink, and Tobacco.....	0.47	0.49	0.49	0.47	0.48	0.47	0.46	0.44	0.46	10.20
Lumber and Its Products.....	0.48	0.49	0.49	0.50	0.47	0.46	0.45	0.44	0.44	12.00
Metals and Metal Products ^g	0.60	0.61	0.63	0.66	0.59	0.63	0.57	0.56	0.58	15.15
Paper and Printing.....	0.61	0.63	0.65	0.64	0.65	0.66	0.66	0.62	0.64	3.12
Mineral Products ^h	0.47	0.49	0.52	0.50	0.50	0.51	0.50	0.47	0.47	9.62
Textile and Leather Products ⁱ	0.69	0.68	0.67	0.68	0.65	0.67	0.67	0.66	0.64	7.25

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.^b Includes chemical, stone, glass, and clay products.^c Includes clothing of all kinds.^d Rates of pay for any given work probably decline more in times of depression than do the average earnings, the latter being kept up by the retention of the more highly paid employees.^e Probably not representative as record is taken from only six reports.^f Increase—minimum for corresponding quarters.^g Enterprises are classified according to the numbers employed in the first quarter of 1920.

TABLE LX

AN ESTIMATE FOR THE CONTINENTAL UNITED STATES OF THE AVERAGE EARNINGS PER HOUR PER EMPLOYEE IN ALL ENTERPRISES HAVING OVER 100^c EMPLOYEES

INDUSTRY	AVERAGE EARNINGS IN DOLLARS PER HOUR ^d								MAXIMUM CYCLICAL DECLINE (Per Cent)
	1920				1921				
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	
All Industries.....	0.59	0.62	0.63	0.64	0.61	0.60	0.57	0.57	12.50
Agriculture.....	0.40	0.43	0.44	0.49	0.40	0.40	0.38	0.37	24.49
Extraction of Minerals.....	0.72	0.74	0.79	0.81	0.80	0.80	0.76	0.76	9.88
Building and Construction.....	0.86	0.85	0.75	0.73	0.72	0.75	0.76	0.76	16.28
Other Hand Trades.....	0.50	0.54	0.54	0.54	0.53	0.54	0.54	0.55	0.00
Finance.....	0.60	0.62	0.65	0.64	0.65	0.66	0.68	0.68	0.00
Public and Professional Service.....	0.44	0.46	0.39	0.56	0.55	0.56	0.43	0.62	0.00
Domestic and Personal Service.....	0.34	0.36	0.37	0.37	0.37	0.37	0.36	0.36	2.70
All Transportation.....	0.58	0.64	0.68	0.69	0.69	0.67	0.62	0.62	10.14
Steam Railways.....	0.60	0.67	0.71	0.72	0.72	0.71	0.64	0.64	11.11
Other Transportation.....	0.53	0.55	0.57	0.57	0.57	0.57	0.57	0.57	0.00
Commerce and Trade.....	0.45	0.45	0.47	0.48	0.46	0.45	0.45	0.44	10.42
Wholesale.....	0.51	0.49	0.50	0.53	0.49	0.48	0.48	0.50	9.80
Retail.....	0.43	0.44	0.46	0.46	0.45	0.44	0.44	0.42	8.70
All Factories.....	0.61	0.63	0.64	0.64	0.60	0.58	0.56	0.54	17.19
Food, Drink, and Tobacco.....	0.54	0.56	0.57	0.57	0.56	0.52	0.50	0.47	19.30
Lumber and Its Products.....	0.52	0.53	0.53	0.54	0.55	0.52	0.51	0.50	10.91
Metals and Metal Products ^a	0.65	0.67	0.68	0.68	0.63	0.62	0.59	0.56	20.59
Paper and Printing.....	0.59	0.63	0.65	0.68	0.67	0.67	0.67	0.69	0.00
Mineral Products ^b	0.58	0.60	0.62	0.65	0.64	0.62	0.60	0.56	13.85
Textile and Leather Products ^c	0.55	0.57	0.57	0.57	0.53	0.51	0.52	0.50	14.04

^a Vehicles, railroad cars, and all products not elsewhere recorded are included here.

^b Includes chemical, stone, glass, and clay products.

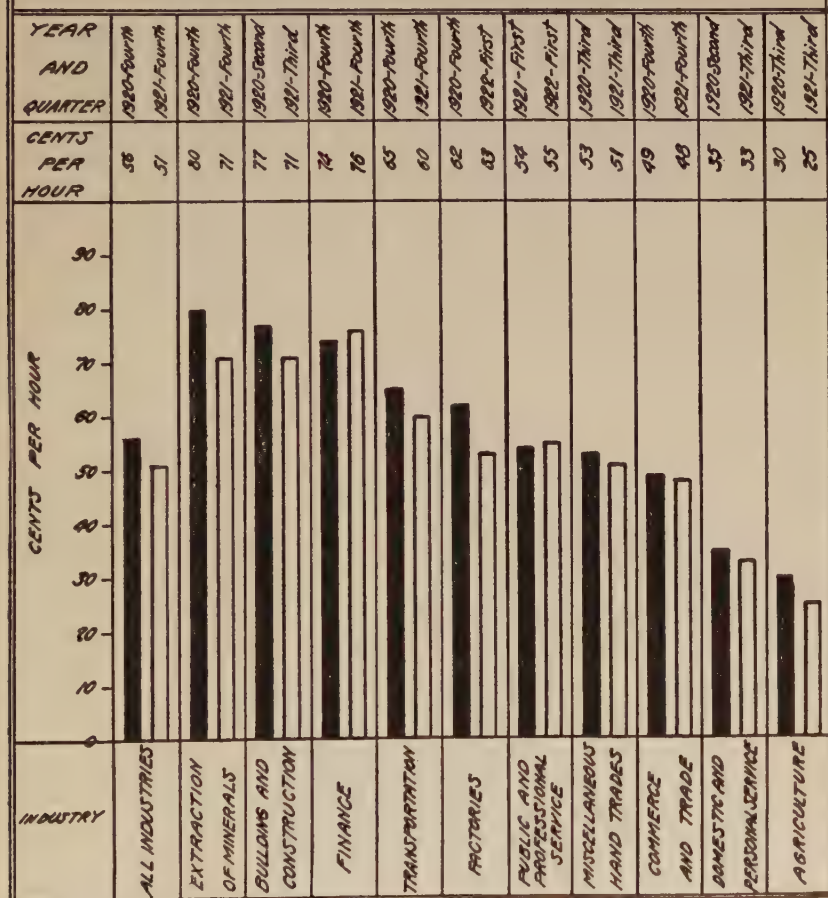
^c Includes clothing of all kinds.

^d Rates of pay for any given work probably decline more in times of depression than do the average earnings, the latter being kept up by the retention of the more highly paid employees.

^e Enterprises are classified according to the numbers employed in the first quarter of 1920.

Chart 9

THE AVERAGE EARNINGS PER HOUR
AT THE PEAK AND AT THE TROUGH FOR
EMPLOYEES IN THE DIFFERENT INDUSTRIAL FIELDS
PERIOD COVERED; JANUARY 1, 1920 TO MARCH 31, 1922.



perquisites commonly enjoyed by this class of workers. Manufacturing, including the hand trades, public and professional service, and commerce and trade all show rates of pay relatively close to the average for all industries.

Chart 9 serves to bring out more clearly the relative earnings in different branches of industry and also the changes in these averages brought about by the cyclical depression of 1921.

EXPENDITURES BY FARMERS FOR LABOR

Table LXI shows the average amounts per week paid out by the Crop Reporters of the United States Department of Agriculture for hired help on their farms. According to these figures the average annual expenditure per farm for labor was \$1,254 in 1920, as compared to \$1,051 in 1921. The Bureau of the Census reports that, on January 1, 1920, there were 6,448,343 farms in the United States. At the average rate of expenditure cited above for 1920, the total wage bill paid by all farmers would have amounted to slightly over eight billions of dollars. On page 10 of the Census of Agriculture, it is stated that, in 1919, the farmers spent for labor only \$1,356,403,452. The inevitable conclusion from this evidence is that, if the Census is correct, the typical Crop Reporter hires about six times as much labor as does the average farmer. Manifestly, then, the data in Table LXI must be considered as illustrating only relative and not absolute conditions in the United States.

The figures indicate that farmers spend more than twice as much for labor in the third quarter as in the first quarter of the year. The expenditures in the second and fourth quarters are intermediate in amount, the outlay in one being about as great as in the other.

Crop Reporters in the Pacific Coast region spend for hired labor nearly three times as much as the average for the entire country. New England and the Rocky Mountain sections are both well above the average in this type of expense. Farmers in the eastern half of the Mississippi Valley expend less for labor than do those in other parts of the country.

THE WAGES OF FARM EMPLOYEES

In the winter, male employees hired by the month draw more total pay than do all other classes combined but, in the summer, they get less in the aggregate than do male day workers. All female employees combined draw only about one-tenth of the total wages paid to farm laborers in general.

While the Crop Reporters employ more help than do the remaining farmers, there seems to be no reason to suppose that they pay other than the market rates of wages. If this assumption is valid, the tables which follow presumably represent with a reasonable degree of accuracy the wage rates prevailing on the farms in different sections of the United States.

Table LXII records the average weekly rates of pay for each class of male

TABLE LXI

AVERAGE^a WEEKLY WAGE BILLS PER FARM PAID BY THE AGRICULTURAL DEPARTMENT'S CROP REPORTERS TO DIFFERENT CLASSES OF WORKERS

SECTION	SEX OF WORKERS	WORKING BY	1920				1921				1922
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
ENTIRE UNITED STATES	Both	Total	\$15.28	\$22.94	\$35.64	\$22.58	\$13.69	\$20.04	\$29.07	\$18.05	\$12.89
	Male	Month	8.33	11.57	13.53	10.17	7.55	9.92	11.31	8.38	6.95
	Male	Day	5.26	9.06	18.72	10.04	4.67	8.05	14.97	7.77	4.48
	Female	Day	2.11	1.23	1.42	1.63	0.68	1.10	1.65	1.03	0.64
NEW ENGLAND	Female	Week	0.88	1.08	1.28	0.95	0.79	0.97	1.14	0.87	0.82
	Both	Total	27.69	41.86	64.20	44.29	27.36	38.12	58.21	35.28	25.54
	Male	Month	14.03	17.65	20.49	17.74	14.05	15.74	19.09	14.32	12.96
	Male	Day	8.96	18.66	34.29	20.04	9.08	17.22	30.39	15.19	9.03
MIDDLE ATLANTIC	Female	Day	2.19	2.54	6.03	3.46	1.70	2.03	5.20	2.60	1.14
	Female	Week	2.51	3.01	3.39	3.05	2.53	3.13	3.53	3.17	2.41
	Both	Total	20.51	28.93	42.47	28.67	20.06	28.05	38.64	25.94	20.33
	Male	Month	14.12	17.15	20.92	16.38	13.59	16.63	19.50	15.31	13.45
EAST NORTH CENTRAL	Male	Day	4.97	9.20	15.60	10.19	5.11	8.96	14.66	8.97	5.48
	Female	Day	0.47	1.28	2.83	0.84	0.55	1.35	2.33	0.68	0.45
	Female	Week	0.95	1.30	3.12	1.26	0.81	1.11	2.15	0.98	0.95
	Both	Total	8.44	13.80	19.35	12.54	7.70	12.45	16.35	10.29	7.06
WEST NORTH CENTRAL	Male	Month	5.41	8.07	8.84	6.81	4.96	7.13	7.58	5.92	4.42
	Male	Day	2.23	4.72	9.07	4.79	1.96	4.28	7.42	3.46	1.85
	Female	Day	0.41	0.86	0.51	0.43	0.43	0.79	0.48	0.39	0.39
	Female	Week	0.39	0.54	0.58	0.43	0.35	0.56	0.56	0.43	0.40
WEST NORTH CENTRAL	Both	Total	8.51	16.41	35.12	16.01	7.56	13.13	24.92	11.68	6.70
	Male	Month	6.06	10.61	12.76	8.43	5.10	8.00	9.33	6.35	4.46
	Male	Day	1.60	4.54	20.39	6.66	1.77	4.41	14.02	4.53	1.52
	Female	Day	0.19	0.41	0.88	0.23	0.17	0.30	0.71	0.26	0.20
WEST NORTH CENTRAL	Female	Week	0.66	0.85	1.09	0.69	0.52	0.62	0.86	0.54	0.52

^a Averages based upon reports for the farms of about 6,000 United States Agricultural Department's Crop Reporters.

TABLE LXI (CONT.)

AVERAGE^a WEEKLY WAGE BILLS PER FARM PAID BY THE AGRICULTURAL DEPARTMENT'S CROP REPORTERS TO DIFFERENT CLASSES OF WORKERS

SECTION	SEX OF WORKERS	WORKING BY	1920						1921				1922	
			First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	First quarter	Second quarter
SOUTH ATLANTIC	Both	Total	\$23.96	\$27.33	\$29.21	\$26.56	\$19.14	\$23.06	\$22.62	\$32.80	\$16.52			
	Male	Month	11.10	12.56	12.25	11.45	9.16	10.34	9.85	9.08	7.80			
	Male	Day	10.02	11.69	13.18	11.40	7.62	9.48	10.04	8.34	6.52			
	Female	Day	1.71	1.96	2.47	2.56	1.24	2.09	1.62	1.60	1.11			
EAST SOUTH CENTRAL	Female	Week	1.13	1.12	1.31	1.15	1.11	1.15	1.11	1.11	1.09			
	Both	Total	13.06	16.95	17.45	14.70	11.65	15.37	16.36	13.67	12.24			
	Male	Month	6.48	8.10	8.09	6.95	6.16	7.50	7.35	6.64	6.18			
	Male	Day	5.10	6.54	7.08	5.93	4.11	5.83	6.97	5.30	4.39			
WEST SOUTH CENTRAL	Female	Day	1.05	1.77	1.77	1.38	0.90	1.49	1.52	1.29	0.99			
	Female	Week	0.43	0.54	0.51	0.44	0.48	0.55	0.52	0.44	0.68			
	Both	Total	13.04	19.59	24.17	21.00	11.00	15.45	18.35	14.67	11.02			
	Male	Month	4.35	5.44	6.36	6.01	3.78	4.48	4.74	4.27	3.40			
MOUNTAIN	Male	Day	6.65	10.76	14.43	11.89	5.64	8.56	11.38	8.38	5.95			
	Female	Day	0.82	1.96	2.31	1.33	0.73	1.43	1.33	1.18	0.88			
	Female	Week	1.22	1.43	1.07	1.14	0.85	0.98	0.90	0.84	0.79			
	Both	Total	11.76	25.10	55.16	24.41	10.18	20.78	43.70	19.26	9.84			
PACIFIC	Male	Month	8.47	15.55	24.23	11.83	7.22	12.94	18.82	8.92	6.79			
	Male	Day	2.36	8.24	28.86	11.05	2.08	6.72	22.69	9.16	2.06			
	Female	Day	0.54	0.71	1.19	1.13	0.54	0.72	1.36	0.85	0.57			
	Female	Week	0.39	0.60	0.88	0.40	0.34	0.40	0.83	0.33	0.42			
	Both	Total	39.35	56.68	101.07	56.22	36.08	53.20	83.97	48.65	33.49			
	Male	Month	19.45	26.62	32.06	21.53	18.09	24.07	28.90	19.01	17.12			
	Male	Day	18.45	27.32	62.32	29.90	16.51	26.19	50.39	26.70	14.99			
	Female	Day	0.52	1.28	5.18	3.86	0.49	1.49	3.18	1.95	0.50			
	Female	Week	0.93	1.46	1.51	0.93	0.99	1.45	1.50	0.99	0.88			

^a Averages based upon reports for the farms of about 6,000 United States Agricultural Department's Crop Reporters.

TABLE LXII

AVERAGE WEEKLY RATES OF PAY REPORTED^a FOR MALE AGRICULTURAL WORKERS WHEN THEY WERE EMPLOYED

(Informants Were Instructed to Include in the Pay the Value of Board, Housing, Etc., Furnished)

FORM OF CONTRACT	SECTION	1920				1921				1922
		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY MONTH	Entire United States.....	\$13.27	\$14.14	\$15.60	\$14.13	\$12.17	\$12.35	\$13.31	\$11.89	\$11.04
	New England.....	17.12	17.50	18.03	18.07	16.48	14.70	16.48	13.93	15.27
	Middle Atlantic.....	16.39	16.85	17.04	16.50	15.73	15.58	16.50	15.83	15.03
	East North Central.....	14.38	14.76	15.05	14.83	13.54	12.81	13.15	13.48	12.45
	West North Central.....	14.40	16.48	18.06	16.12	12.69	13.29	14.17	12.75	10.94
	South Atlantic.....	8.86	9.11	9.21	9.13	8.10	8.01	7.74	7.71	6.97
	East South Central.....	8.60	8.50	9.25	8.67	7.53	8.09	8.34	7.59	7.52
	West South Central.....	9.92	10.84	12.20	11.42	8.69	8.77	9.28	8.29	7.88
	Mountain.....	18.90	20.34	23.62	20.68	17.38	17.40	18.88	16.65	15.26
	Pacific.....	21.42	22.76	24.89	22.78	19.72	19.80	20.67	19.27	18.46
WORKING BY DAY	Entire United States.....	11.80	13.89	18.76	15.20	10.42	12.10	15.27	11.85	9.53
	New England.....	14.67	18.32	19.35	18.70	13.80	16.42	16.63	14.36	14.34
	Middle Atlantic.....	15.23	15.54	18.45	18.02	14.38	14.91	16.19	14.88	13.22
	East North Central.....	12.15	14.69	16.73	17.18	12.15	12.48	15.18	12.12	10.60
	West North Central.....	14.88	17.54	26.73	21.38	14.98	14.73	20.67	15.62	10.56
	South Atlantic.....	9.67	9.77	10.71	10.10	7.87	7.82	8.09	7.79	6.68
	East South Central.....	7.07	7.63	7.96	7.36	6.05	6.71	6.93	6.54	5.46
	West South Central.....	9.55	11.68	14.03	11.40	7.55	8.91	11.20	8.35	7.10
	Mountain.....	17.71	20.94	27.25	28.87	16.00	17.34	21.08	22.60	13.34
	Pacific.....	22.70	21.89	27.34	22.97	20.48	20.14	22.96	19.76	18.68

^a Averages calculated from reports covering about 6,000 farms.

workers. The 1920 averages for males working by the month are about 5 per cent lower than the corresponding figures presented by the United States Department of Agriculture. The fact that the two estimates check so closely gives one considerable confidence in the substantial accuracy of the present investigation so far as conditions on farms are concerned.

The striking fall in farm wages occurring between 1920 and 1922 has already been mentioned. It is of interest to note, however, that the decline was relatively more severe in the western than in the eastern half of the United States. In the West Central and Rocky Mountain sections wages of day labor in the early part of 1922 were less than half what they were in the late summer of 1920.

Sectional wage differences are surprisingly large. In the third quarter of 1920, for example, male day workers in the West North Central, Rocky Mountain, and Pacific Coast States were getting more than three times as much per week as were those in the East South Central region. Even after the depression was on, almost the same degree of discrepancy between the Pacific and East South Central sections persisted. In general, wages in the South run relatively very low, while, in the West, they are far above the average for the entire country.

Tables LXIII and LXIV illustrate the manner in which male agricultural workers hired by the month are distributed among various wage classes. The interesting feature of this distribution is that there are no fewer than six classes containing roughly equal numbers of workers with a rapid falling off in frequency at each extreme. The modal wage appears to have remained unchanged throughout 1920 and 1921 at approximately \$35.00 per month.

Table LXIV reveals the reason for the peculiarity observed as occurring in the distribution presented in Table LXIII. It arises principally from the fact that the general height of wages—and likewise the mode—varies widely in different parts of the United States. Thus, on the Pacific Coast, in 1920, the modal pay per month was about \$115, in the Rocky Mountain section about \$105, in New England approximately \$85, in the Middle Atlantic and North Central sections around \$65, and in the South only about \$35. The combination of such heterogeneous results naturally produces an odd frequency distribution.

The figures for the third quarter of 1921 show a lowering of wages in all sections of the United States, but in the Middle Atlantic and North Central States the change had not been great enough to move the mode out of the \$60.00 to \$69.99 class.

Table LXV shows for each of the nine quarters the distribution of day workers according to their rates of pay per day. This distribution, like that of the workers hired by the month, reveals a large number of classes containing nearly as many persons as the modal class. An inspection of Table

TABLE LXIII

**FREQUENCY DISTRIBUTION ACCORDING TO THE RATE OF PAY PER MONTH
OF ALL MALE AGRICULTURAL WORKERS HIRED BY THE MONTH**

BY CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER MONTH	NUMBER OF MALE EMPLOYEES								
	1920				1921				1922
	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
\$0.00 to \$9.99	9	11	14	4	5	10	12	7	22
10.00 " 19.99	163	169	102	208	266	270	195	297	367
20.00 " 29.99	545	557	569	498	679	694	709	686	740
30.00 " 39.99	643	721	715	665	664	825	843	723	737
40.00 " 49.99	520	636	633	595	534	675	725	635	563
50.00 " 59.99	593	741	668	593	421	657	713	570	502
60.00 " 69.99	540	655	833	596	570	780	842	658	508
70.00 " 79.99	476	673	710	530	418	730	806	517	364
80.00 " 89.99	298	465	494	393	297	399	592	390	293
90.00 " 99.99	251	329	373	308	208	282	295	130	114
100.00 " 109.99	261	468	515	405	171	171	241	188	73
110.00 " 119.99	51	151	196	83	35	33	59	30	17
120.00 " 129.99	98	141	158	130	57	48	70	42	40
130.00 " 139.99	8	23	20	18	11	19	21	14	3
140.00 " 149.99	13	19	117	38	5	4	27	4	4
150.00 " 169.99	15	16	104	30	13	17	8	10	8
170.00 " 189.99	0	11	5	2	1	5	4	2	1
190.00 " 209.99	1	2	12	1	1	1	5	1	0
210.00 " 229.99	1	1	1	1	0	0	0	0	0
Total.....	4,484	5,788	6,237	5,096	4,355	5,619	6,167	4,904	4,354

LXVI shows that the cause is the same as in the preceding instance—namely, the fact that the modal wage differs widely in different sections of the United States.

The modal daily wage has a proportionally larger seasonal variation than has the monthly wage. This condition is illustrated by the fact that, in 1920, the modal wage rose from about \$2.00 in the first two quarters to approximately \$4.00 in the third quarter, but fell back to about \$3.00 in the last quarter of the year. The effect of the depression of 1921 is shown by the decline of the mode to the \$1.00 to \$1.49 class, where it remained for the first two quarters. It then rose into the \$3.00 to \$3.49 class, but fell back in the fourth quarter to its position in the earlier part of the year and remained there throughout the winter.

Table LXVI brings out the interesting fact that, though in New England and the Middle Atlantic States day workers are concentrated near the

TABLE LXIV

**FREQUENCY DISTRIBUTION ACCORDING TO THE RATE OF PAY PER MONTH
OF MALE AGRICULTURAL WORKERS HIRED BY THE MONTH IN
DIFFERENT SECTIONS OF THE UNITED STATES**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE
(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER MONTH	NUMBER OF MALE EMPLOYEES IN THE THIRD QUARTER OF 1920					
	New England	Middle Atlantic	North Central	The South	Moun- tain	Pacific
\$0.00 to \$9.99	0	0	6	8	0	0
10.00 " 19.99	3	0	7	92	0	0
20.00 " 29.99	14	13	12	526	3	0
30.00 " 39.99	20	30	113	548	2	1
40.00 " 49.99	37	20	189	363	19	5
50.00 " 59.99	55	52	275	270	11	4
60.00 " 69.99	95	114	369	181	40	34
70.00 " 79.99	127	96	292	112	48	36
80.00 " 89.99	134	94	177	26	42	21
90.00 " 99.99	72	110	97	16	64	14
100.00 " 109.99	105	24	167	25	126	69
110.00 " 119.99	26	1	45	4	41	80
120.00 " 129.99	27	6	41	25	16	43
130.00 " 139.99	4	3	6	2	5	0
140.00 " 149.99	7	0	45	0	52	14
150.00 " 169.99	3	0	40	15	17	29
170.00 " 189.99	1	0	0	0	2	2
190.00 " 209.00	0	0	3	0	0	9
210.00 " 229.99	0	0	0	0	1	0
Total	730	562	1,883	2,213	490	360

	NUMBER OF MALE EMPLOYEES IN THE THIRD QUARTER OF 1921					
	New England	Middle Atlantic	North Central	The South	Moun- tain	Pacific
\$0.00 to \$9.99	2	0	7	3	0	0
10.00 " 19.99	2	1	7	185	0	0
20.00 " 29.99	17	18	22	648	4	0
30.00 " 39.99	35	27	187	591	1	2
40.00 " 49.99	53	39	274	301	30	28
50.00 " 59.99	83	51	361	166	41	11
60.00 " 69.99	126	140	380	103	49	45
70.00 " 79.99	186	119	266	68	129	38
80.00 " 89.99	120	126	227	9	83	28
90.00 " 99.99	73	24	63	5	31	99
100.00 " 109.99	32	12	58	24	51	64
110.00 " 119.99	10	0	5	0	26	19
120.00 " 129.99	6	8	8	12	0	36
130.00 " 139.99	4	3	3	5	2	4
140.00 " 149.99	7	0	0	0	11	9
150.00 " 169.99	0	0	5	0	3	0
170.00 " 189.99	1	0	0	0	1	2
190.00 " 209.99	0	0	3	0	2	0
210.00 " 229.99	0	0	0	0	0	0
Total	757	567	1,875	2,120	463	385

TABLE LXVI

**FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER DAY OF MALE
AGRICULTURAL WORKERS HIRED BY THE DAY IN DIFFERENT
SECTIONS OF THE UNITED STATES**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER DAY	NUMBER OF MALE EMPLOYEES IN THE THIRD QUARTER OF 1920					
	New England	Middle Atlantic	North Central	The South	Moun- tain	Pacific
\$0.00 to \$0.49	0	0	0	0	0	0
0.50 " 0.99	0	1	2	133	0	0
1.00 " 1.49	8	7	25	460	6	0
1.50 " 1.99	4	10	74	553	5	0
2.00 " 2.49	29	18	191	680	7	7
2.50 " 2.99	95	42	206	342	12	16
3.00 " 3.49	292	118	301	241	45	91
3.50 " 3.99	172	99	105	100	48	77
4.00 " 4.49	364	97	280	102	94	153
4.50 " 4.99	79	8	45	10	25	65
5.00 " 5.49	55	36	225	45	134	150
5.50 " 5.99	0	0	27	7	0	0
6.00 " 6.49	11	5	195	25	53	47
6.50 " 6.99	0	0	26	0	0	3
7.00 " 7.49	3	3	68	11	11	15
7.50 " 7.99	0	0	46	4	0	0
8.00 " 8.49	8	0	89	7	32	27
8.50 " 8.99	0	0	20	0	1	0
9.00 " 9.49	0	0	33	3	0	0
9.50 " 9.99	0	0	10	0	0	0
10.00 " 10.49	0	0	17	0	0	4
Total.....	1,120	443	1,983	2,724	471	654

NUMBER OF MALE EMPLOYEES IN THE THIRD QUARTER OF 1921						
\$0.00 to \$0.49	0	0	0	0	0	0
0.50 " 0.99	0	1	21	217	6	0
1.00 " 1.49	14	6	33	898	0	0
1.50 " 1.99	35	7	133	673	5	0
2.00 " 2.49	17	42	245	516	28	19
2.50 " 2.99	340	76	235	180	69	27
3.00 " 3.49	512	157	372	116	112	158
3.50 " 3.99	135	87	153	18	96	124
4.00 " 4.49	78	41	199	47	58	162
4.50 " 4.99	11	4	56	2	29	18
5.00 " 5.49	7	3	350	23	34	54
5.50 " 5.99	0	0	21	11	0	0
6.00 " 6.49	9	3	50	0	7	47
6.50 " 6.99	0	0	13	0	0	0
7.00 " 7.49	0	0	52	9	0	4
7.50 " 7.99	0	0	2	0	0	0
8.00 " 8.49	0	0	12	3	60	2
8.50 " 8.99	0	0	7	0	0	0
9.00 " 9.49	0	0	1	0	0	0
9.50 " 9.99	0	0	0	0	0	0
10.00 " 10.49	0	0	0	1	3	0
Total.....	1,159	427	1,955	2,713	507	615

modal wage class, in the South and still more in the North Central region, there is a wide scatter in the wages of this class of farm labor. Thus, during the third quarter of 1920, in the first two geographical divisions mentioned, nearly three-fourths of all day workers received between \$3.00 and \$4.49 a day, while in the North Central division it is necessary to consider the whole range from \$2.00 to \$5.49 to include an equal proportion. The same peculiarities of dispersion continued in 1921. The wider scatter characterizing these parts of the nation probably reflects the greater importance of highly paid harvest hands in the regions devoted to the growing of small grain and cotton.

During the third quarter of 1920 the modal wage for day labor on farms, both in New England and the Pacific States, was approximately \$4.00. In the Rocky Mountain region it was higher—being in the neighborhood of \$5.00—and there were nearly as many of the Pacific Coast day workers in this class as in any other. In the Middle Atlantic and North Central regions \$3.00 seems to have been the commonest rate of pay, while, in the South, more day laborers on farms received \$2.00 than any other figure.

In the third quarter of 1921 the mode was the same as a year earlier in the Middle Atlantic, North Central, and Pacific Coast divisions; but in both New England and the South the modal rate was now a dollar lower and in the Rocky Mountain section a fall of \$2.00 had occurred. Only in the North Central States did any considerable number of farm hands continue to draw \$5.00 per day, a rate presumably maintained by the urgency of harvest requirements.

Weekly wages for female workers on farms are recorded in Table LXVII, which shows that in 1920 the average hired girl employed by the week received something over \$10 per week, but that, in the beginning of 1922, her wage had fallen below the \$9 mark. It is of interest to observe that, in the South, she receives scarcely half the amount paid in New England, the Rocky Mountain States, or the Pacific Coast region. Seasonal changes in wage rates are relatively slight.

Wages of female day workers vary from section to section of the country in much the same way as do those of women workers by the week. However, day workers in the South draw decidedly less pay per week than do those hired by the week—the difference being due presumably to greater irregularity of work. Since female day workers are more abundant in the South than in other sections of the country, the low rates there prevailing pull down the average for the Continental United States.

This kind of labor in New England and the Pacific Coast and West North Central divisions earned, in the summer of 1920, well over \$15 per week, while in that part of the South east of the Mississippi river, average earnings were less than \$4.50 per week. The pay for this type of work shows a

TABLE LXVII

AVERAGE WEEKLY RATES OF PAY REPORTED ^a FOR FEMALES EMPLOYED ON FARMS

(Informants Were Instructed to Include in the Pay the Value of Board, Housing, Etc., Furnished)

FORM OF CONTRACT	SECTION	1920				1921				1922
		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY WEEK	Entire United States.....	\$10.11	\$10.43	\$10.88	\$10.28	\$8.87	\$9.37	\$9.95	\$9.52	\$8.78
	New England.....	15.40	15.86	14.99	16.44	15.18	15.65	15.52	15.70	14.62
	Middle Atlantic.....	10.92	12.32	13.20	11.55	8.32	11.87	11.88	8.52	11.34
	East North Central.....	9.10	9.37	8.91	9.11	9.10	8.82	9.50	9.23	9.08
	West North Central.....	11.07	10.98	10.87	10.44	9.46	8.54	9.54	9.55	9.02
	South Atlantic.....	6.43	6.27	7.40	6.61	6.19	6.34	5.99	6.27	6.33
	East South Central.....	5.89	5.59	6.17	6.04	5.96	6.28	6.14	5.87	7.17
	West South Central.....	8.84	9.54	8.40	8.21	6.51	7.03	6.60	6.38	6.37
	Mountain.....	12.60	14.93	12.73	14.19	13.55	13.38	12.89	14.67	12.48
	Pacific.....	15.24	16.44	15.93	16.50	15.89	15.45	15.20	14.21	14.33
WORKING BY DAY	Entire United States.....	5.81	6.37	8.90	7.81	5.82	6.06	7.61	6.46	4.93
	New England.....	13.80	12.14	15.57	13.27	11.63	10.41	11.48	10.63	8.58
	Middle Atlantic.....	6.77	7.71	10.15	9.77	7.46	7.54	9.39	7.38	6.70
	East North Central.....	8.89	8.26	10.70	9.41	8.74	8.08	10.10	8.66	7.94
	West North Central.....	8.10	8.94	16.07	9.08	8.87	9.01	12.95	9.86	9.37
	South Atlantic.....	3.67	3.49	4.50	5.01	3.67	4.15	3.37	3.89	3.24
	East South Central.....	4.15	4.27	4.27	4.20	3.66	2.86	3.99	3.94	3.44
	West South Central.....	6.60	7.45	8.55	8.08	6.36	5.46	5.96	5.86	4.04
	Mountain.....	12.43	12.70	13.30	15.35	11.35	11.85	13.21	12.48	10.82
	Pacific.....	14.08	14.11	17.09	19.00	15.18	13.10	13.75	13.95	13.59

^a Averages calculated from reports covering about 5,600 farms.

TABLE LXVIII

**FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER WEEK OF ALL
FEMALE EMPLOYEES HIRED BY THE WEEK**

BY CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE
(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER WEEK	NUMBER OF FEMALE EMPLOYEES								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
\$0.00 to \$0.99	0	0	0	0	0	1	1	0	0
1.00 " 1.99	1	4	4	5	5	7	6	8	4
2.00 " 2.99	27	21	15	11	55	34	33	34	38
3.00 " 3.99	21	27	24	22	28	33	41	25	25
4.00 " 4.99	43	56	60	41	32	37	36	35	38
5.00 " 5.99	83	94	87	99	103	116	129	111	87
6.00 " 6.99	39	51	68	52	43	46	49	42	37
7.00 " 7.99	47	55	51	47	44	57	57	41	49
8.00 " 8.99	77	66	74	55	55	64	75	66	64
9.00 " 9.99	22	22	26	20	16	20	34	19	18
10.00 " 11.99	95	105	109	101	54	67	76	64	59
12.00 " 13.99	46	50	83	54	45	58	105	52	70
14.00 " 15.99	32	45	43	45	42	45	61	54	58
16.00 " 19.99	45	66	79	60	37	59	64	37	26
20.00 " 23.99	23	53	53	29	28	38	37	36	23
24.00 " 27.99	24	17	23	20	13	13	14	11	12
28.00 " 31.99	1	1	3	1	0	4	3	1	0
32.00 " 35.99	1	1	3	2	1	2	4	1	1
36.00 " 40.99	0	2	2	0	0	0	1	0	2
Total	627	736	807	664	601	701	826	637	611

large seasonal fluctuation. This effect, when added to the cyclical decline, brought the pay for female day workers in the first quarter of 1922 down to \$3 or \$4 per week in the South and \$7 to \$9 per week in the North. Only in the Rocky Mountain region and westward did rates remain well above \$10 weekly.

Table LXVIII shows the same wide scatter in the rates of pay for female workers hired by the week that characterizes similar phenomena for male workers. Table LXIX brings out the reason for this scatter—a reason which previous results have led us to anticipate—namely, the wide difference separating wage rates in different sections of the United States. The result of adding together heterogeneous wage groups is to produce a combination having several distinct sub-modes. Throughout the period the mode for the United States appears to have been \$5.00 per week, but, in some quarters, almost as large a number of hired girls were found in the \$8.00 to \$8.99 class. In 1921 this class had diminished and the modal class

TABLE LXIX

**FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER WEEK OF FEMALE
EMPLOYEES HIRED BY THE WEEK IN DIFFERENT SECTIONS OF
THE UNITED STATES**

BY CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE
(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER WEEK	NUMBER OF FEMALE EMPLOYEES IN THE THIRD QUARTER OF 1920					
	New England	Middle Atlantic	North Central	The South	Moun- tain	Pacific
\$0.00 to \$0.99	0	0	0	0	0	0
1.00 " 1.99	0	0	0	4	0	0
2.00 " 2.99	1	1	1	10	1	1
3.00 " 3.99	1	0	7	16	0	0
4.00 " 4.99	0	1	8	50	0	0
5.00 " 5.99	7	8	25	48	0	0
6.00 " 6.99	1	3	31	31	1	0
7.00 " 7.99	11	2	16	19	2	0
8.00 " 8.99	4	2	16	44	5	3
9.00 " 9.99	2	3	14	7	0	0
10.00 " 11.99	12	15	44	32	5	2
12.00 " 13.99	30	5	30	15	2	2
14.00 " 15.99	5	3	24	2	6	2
16.00 " 19.99	32	0	22	8	7	10
20.00 " 23.99	25	10	5	7	2	3
24.00 " 27.99	14	1	2	1	6	0
28.00 " 40.00	3	0	4	0	0	2
Total.....	148	54	249	294	37	25
	NUMBER OF FEMALE EMPLOYEES IN THE THIRD QUARTER OF 1921					
	New England	Middle Atlantic	North Central	The South	Moun- tain	Pacific
\$0.00 to \$0.99	0	0	0	1	0	0
1.00 " 1.99	0	0	1	3	1	2
2.00 " 2.99	1	1	2	30	0	0
3.00 " 3.99	0	1	6	27	7	0
4.00 " 4.99	2	1	11	22	0	0
5.00 " 5.99	6	5	41	73	3	1
6.00 " 6.99	3	3	19	24	0	0
7.00 " 7.99	12	1	23	19	2	0
8.00 " 8.99	6	3	15	46	2	3
9.00 " 9.99	2	3	16	8	5	0
10.00 " 11.99	10	8	35	18	3	3
12.00 " 13.99	31	30	26	13	1	4
14.00 " 15.99	14	8	12	15	9	3
16.00 " 19.99	35	0	17	0	2	10
20.00 " 23.99	21	5	2	5	2	2
24.00 " 27.99	9	2	2	0	1	0
28.00 " 40.00	3	0	4	0	1	1
Total	155	71	232	304	39	29

TABLE LXX

FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER DAY OF ALL FEMALE EMPLOYEES HIRED BY THE DAY

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER DAY	NUMBER OF FEMALE EMPLOYEES								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
\$0.00 to \$0.19	0	0	0	0	0	0	0	0	0
0.20 " 0.39	24	24	4	24	5	28	5	25	30
0.40 " 0.59	146	73	89	68	98	82	92	80	107
0.60 " 0.79	87	125	114	107	145	232	241	249	221
0.80 " 0.99	29	54	41	79	38	42	45	42	82
1.00 " 1.19	249	416	384	248	182	326	355	207	179
1.20 " 1.39	79	144	170	126	79	196	119	104	40
1.40 " 1.59	100	150	195	198	67	118	162	112	79
1.60 " 1.79	19	35	35	21	17	55	61	29	23
1.80 " 1.99	2	3	2	1	0	0	3	0	1
2.00 " 2.19	86	204	263	156	91	124	184	192	96
2.20 " 2.39	16	6	11	6	10	33	20	4	4
2.40 " 2.79	19	94	115	102	40	55	166	40	18
2.80 " 3.19	48	65	131	96	33	25	102	36	11
3.20 " 3.59	15	6	95	31	1	4	7	22	3
3.60 " 3.99	0	1	1	0	0	1	2	0	0
4.00 " 5.99	7	10	54	20	5	7	26	9	6
6.00 " 7.99	2	3	13	1	1	3	3	0	3
8.00 " 10.00	0	1	9	2	2	1	2	3	6
Total.....	928	1,414	1,726	1,286	814	1,332	1,595	1,154	909

had increased in numbers, with the result that \$5.00 had become distinctly the most common wage for the country as a whole.

A study of Table LXIX shows that, in the New England and Pacific Coast sections respectively, the modal wage for hired girls was the same in the third quarters of both 1920 and 1921, falling in the \$12.00 to \$13.99 class in the former and in the \$16.00 to \$19.99 class in the latter region. Strangely enough, modal wage rates rose by one class interval in both the Middle Atlantic States and the South. In the first mentioned group, the shift was out of the \$10.00-\$11.99 into the \$12.00-\$13.99 class; in the South, it was from the \$4.00-\$4.99 into the \$5.00-\$5.99 class. In the North Central States, the number in the \$6.00-\$6.99 class diminished and the number in the \$5.00-\$5.99 class grew, making the latter the mode in the third quarter of 1921.

Table LXX shows that, during 1920, the modal rate for female day workers on farms was rather definitely fixed at \$1.00, though the 75 cent, \$1.50,

and \$2.00 classes were by no means negligible in size. In 1921, the classes receiving the smaller pay began to grow rapidly at the expense of the others until, in the fourth quarter of 1921, 75 cents per day became the most common wage. Since the South employs more than half of all females working by the day on farms, conditions in that section tend to dominate the entire distribution.

Table LXXI compares for different geographical divisions the distributions according to daily wage rates of females employed on farms in the third quarter of 1920 and in the corresponding quarter of 1921 in the Middle Atlantic, the Rocky Mountain, and the North Central States. The figures show that the modal rate was the same in all these localities in both periods—namely, \$2.00. In the South, likewise, there was no change, the modal rate continuing at \$1 per day. In New England, however, there was a sharp rise—the mode moving from \$1.50 to \$2.00. The Pacific Coast alone shows a decline between 1920 and 1921, the modal wage rate for female day workers going from \$2.00 to \$1.25 per day.

In the discussion just presented, wage rates have been classified according to the forms in which they have been reported, that is, by the day, the week, or the month. In order to make them comparable with each other and with wages in other industries it is manifestly necessary to reduce them to some common unit. This has been done in the tables which follow, all wages of farm labor being expressed in terms of cents per hour.

According to Table LXXII, the rates per hour tend to be about the same in winter whether a man works by the month or by the day, but in the summer time the day worker commands about a third higher pay for an hour's work. The cyclical depression reduced wages for day workers by about one-third, while men hired by the month escaped with a reduction of only one-fifth. Hired men receive fifty per cent more pay per hour in the North than in the South, while workers of the same class in the West receive double the Southern rates. Approximately the same relationships between sections are found to apply to the wages of day workers, except at harvest time, when those in the West North Central region draw much higher pay than they do at other seasons.

Unlike male agricultural workers, females working by the day are not as highly paid as are those more regularly employed. Average rates in the third quarter tend to be about the same for both types of employees, but, at other seasons of the year, the difference is in favor of the female hired by the week. In the first quarter of 1920, for example, she received 19 cents per hour, while the day worker was paid only 14 cents. In the first quarter of 1922 the respective rates were 16 and 13 cents per hour.

Female workers on farms were affected somewhat less severely than the

TABLE LXXI

**FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER DAY OF FEMALE
EMPLOYEES HIRED BY THE DAY**

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE
(Informants Were Asked to Include in Wages the Value of Board, Lodging, Etc., Furnished)

PAY IN DOLLARS PER DAY	NUMBER OF FEMALE EMPLOYEES IN THIRD QUARTER OF 1920					
	New England	Middle Atlantic	North Central	The South	Moun- tain	Pacific
\$0.00 to \$0.19	0	0	0	0	0	0
0.20 " 0.39	0	0	0	4	0	0
0.40 " 0.59	0	1	2	85	0	1
0.60 " 0.79	5	2	3	104	0	0
0.80 " 0.99	0	0	0	40	0	0
1.00 " 1.19	11	3	22	345	2	0
1.20 " 1.39	4	20	20	123	3	0
1.40 " 1.59	52	3	23	109	1	7
1.60 " 1.79	4	1	7	20	2	2
1.80 " 1.99	0	0	2	0	0	0
2.00 " 2.19	38	41	52	94	16	21
2.20 " 2.39	6	1	1	0	0	2
2.40 " 2.79	15	32	16	38	4	12
2.80 " 3.19	51	18	21	11	11	18
3.20 " 3.59	74	2	5	6	0	7
3.60 " 3.99	0	0	0	0	0	1
4.00 " 5.99	15	2	15	4	3	16
6.00 " 7.99	1	1	19	0	0	0
8.00 " 10.00	0	0	1	0	0	0
Total.....	276	127	209	983	42	87
	NUMBER OF FEMALE EMPLOYEES IN THE THIRD QUARTER OF 1921					
\$0.00 to \$0.19	0	0	0	0	0	0
0.20 " 0.39	0	0	0	5	0	0
0.40 " 0.59	0	0	3	88	0	1
0.60 " 0.79	6	2	0	233	0	0
0.80 " 0.99	0	0	5	40	0	0
1.00 " 1.19	10	14	27	300	2	1
1.20 " 1.39	4	5	18	70	3	20
1.40 " 1.59	47	9	31	70	1	4
1.60 " 1.79	18	5	8	27	3	0
1.80 " 1.99	3	0	0	0	0	0
2.00 " 2.19	57	24	49	38	12	4
2.20 " 2.39	2	11	1	0	3	2
2.40 " 2.79	95	23	16	6	9	16
2.80 " 3.19	50	11	13	3	14	10
3.20 " 3.59	1	0	1	0	1	4
3.60 " 3.99	0	0	0	0	0	2
4.00 " 5.99	2	0	18	3	0	2
6.00 " 7.99	1	0	2	0	0	0
8.00 " 10.00	0	0	2	0	0	0
Total.....	296	104	194	883	48	66

TABLE LXXII

AVERAGE HOURLY RATES OF PAY REPORTED ^a FOR MALE AGRICULTURAL LABORERS

(Informants Were Instructed to Include in the Pay the Value of Board, Housing, Etc., Furnished)

FORM OF CONTRACT	SECTION	1920				1921				1922
		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY MONTH	Entire United States.....	\$0.24	\$0.24	\$0.26	\$0.25	\$0.22	\$0.21	\$0.22	\$0.21	\$0.20
	New England.....	0.27	0.27	0.28	0.29	0.26	0.23	0.25	0.22	0.24
	Middle Atlantic.....	0.27	0.27	0.27	0.27	0.26	0.25	0.25	0.26	0.25
	East North Central.....	0.25	0.24	0.24	0.25	0.24	0.21	0.21	0.23	0.22
	West North Central.....	0.25	0.26	0.28	0.27	0.22	0.21	0.22	0.21	0.19
	South Atlantic.....	0.18	0.17	0.17	0.18	0.16	0.15	0.14	0.15	0.14
	East South Central.....	0.17	0.16	0.17	0.17	0.15	0.15	0.15	0.15	0.15
	West South Central.....	0.19	0.20	0.21	0.21	0.17	0.16	0.17	0.16	0.15
	Mountain.....	0.34	0.35	0.41	0.37	0.32	0.30	0.33	0.30	0.28
	Pacific.....	0.37	0.38	0.41	0.39	0.34	0.33	0.34	0.33	0.32
WORKING BY DAY	Entire United States.....	0.25	0.29	0.37	0.32	0.23	0.25	0.30	0.25	0.21
	New England.....	0.28	0.36	0.37	0.38	0.28	0.32	0.33	0.29	0.30
	Middle Atlantic.....	0.34	0.33	0.35	0.37	0.31	0.30	0.32	0.30	0.28
	East North Central.....	0.29	0.31	0.34	0.38	0.30	0.26	0.30	0.27	0.23
	West North Central.....	0.31	0.34	0.54	0.42	0.28	0.29	0.38	0.32	0.23
	South Atlantic.....	0.19	0.21	0.22	0.22	0.18	0.17	0.17	0.17	0.15
	East South Central.....	0.17	0.18	0.17	0.17	0.15	0.15	0.15	0.15	0.13
	West South Central.....	0.22	0.25	0.28	0.25	0.17	0.19	0.22	0.18	0.16
	Mountain.....	0.35	0.39	0.50	0.51	0.32	0.32	0.40	0.42	0.27
	Pacific.....	0.43	0.41	0.49	0.44	0.39	0.38	0.41	0.38	0.36

^aAverages calculated from reports covering about 6,000 farms.

males by the cyclical decline in industry, but, in both cases, it was the day workers whose wages were cut most heavily.

The female employed on the farm receives much better pay for her services both in the East and in the West than she does in the Upper Mississippi Valley or the South. In the last-mentioned section, those hired by the week averaged about 13 cents per hour in the winter of 1921-1922. In the upper Mississippi Valley at the same date the pay was about 3 cents more per hour, while in New England and the Pacific Coast region the pay was 24 cents.

In 1921 the female day worker in the South was averaging about 12 cents per hour, while in other parts of the country she received from fifty to one hundred per cent higher pay. While summer rates for this class of help were lower in 1921 than in 1920, winter rates in most sections declined but slightly, if at all, between the first quarter of 1920 and the same period in 1922, the chief exceptions to this rule being New England and the West South Central States.

Tables LXXIV and LXXV set forth the frequency distribution according to rates of pay per hour of different classes of employees on farms. The reader should observe that the class intervals in Table LXXIV are not uniform throughout, but have been arranged in a rather peculiar way, with an overlap occurring in the seventh and eighth classes. The classification used was adopted when it was discovered that in the detailed classification found in the original table the tendency of hourly rates to concentrate at certain points caused any condensation made on the basis of a uniform class interval to give a misleading picture of the distribution. For the same reason, irregular intervals have been used also in Table LXXV. In order to obtain a better picture of the relations existing between the distributions of wage rates for the four classes of farm employees in the second quarter of 1921, the distributions have been plotted as frequency polygons. These graphs are presented in Chart 11. Different scales have been used for male and female employees, the scale for the latter being so magnified that the shapes of the curves for females are clearly perceptible—which is not true when a common scale is used for both sexes.

In editing the questionnaires sent in by the Crop Reporters, we suspected at first that some of the farmers had forgotten to make allowance for the value of lodging and board furnished to their employees. There is no way of being certain as to how numerous such omissions may have been. It appears probable, however, that, if they were very common, the result would be to cause the frequency curve for employees hired by the month to show more of a "tail" at the left than would be found in the case of day workers—a class for which board and lodging are less commonly furnished. No marked tendency of this kind appears on the chart, hence no support is

TABLE LXXIII

AVERAGE HOURLY RATE OF PAY REPORTED^a FOR FEMALES EMPLOYED ON FARMS

(Informants Were Instructed to Include in the Pay the Value of Board, Housing, Etc., Furnished)

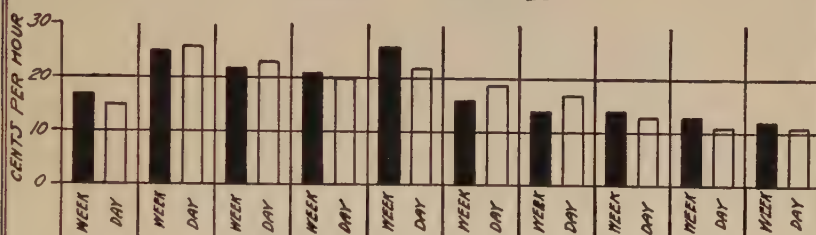
FORM OF CONTRACT	SECTION	1920				1921				1922
		First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter
WORKING BY WEEK	Entire United States.....	\$0.19	\$0.19	\$0.20	\$0.19	\$0.17	\$0.17	\$0.18	\$0.18	\$0.16
	New England.....	0.25	0.26	0.27	0.27	0.25	0.26	0.26	0.26	0.24
	Middle Atlantic.....	0.20	0.22	0.25	0.21	0.20	0.21	0.22	0.20	0.20
	East North Central.....	0.17	0.17	0.16	0.17	0.17	0.16	0.17	0.18	0.17
	West North Central.....	0.18	0.18	0.18	0.17	0.16	0.14	0.16	0.16	0.15
	South Atlantic.....	0.14	0.13	0.15	0.14	0.13	0.13	0.12	0.13	0.13
	East South Central.....	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.14
	West South Central.....	0.19	0.19	0.17	0.17	0.14	0.14	0.13	0.13	0.12
	Mountain.....	0.20	0.24	0.21	0.23	0.22	0.22	0.21	0.22	0.19
	Pacific.....	0.26	0.27	0.27	0.27	0.26	0.25	0.25	0.24	0.24
	Entire United States.....	0.14	0.16	0.21	0.19	0.15	0.15	0.18	0.16	0.13
WORKING BY DAY	New England.....	0.29	0.26	0.30	0.28	0.25	0.22	0.23	0.23	0.20
	Middle Atlantic.....	0.17	0.21	0.24	0.19	0.20	0.20	0.22	0.20	0.20
	East North Central.....	0.19	0.18	0.25	0.21	0.19	0.18	0.22	0.20	0.18
	West North Central.....	0.16	0.17	0.28	0.17	0.17	0.17	0.23	0.19	0.19
	South Atlantic.....	0.09	0.10	0.13	0.14	0.11	0.11	0.10	0.11	0.09
	East South Central.....	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.10
	West South Central.....	0.15	0.17	0.19	0.18	0.14	0.13	0.14	0.13	0.11
	Mountain.....	0.24	0.25	0.25	0.31	0.22	0.23	0.26	0.26	0.21
	Pacific.....	0.28	0.28	0.33	0.38	0.30	0.26	0.26	0.29	0.30

^a Averages calculated from reports covering about 5,600 farms.

Chart 10

THE AVERAGE WAGE PER HOUR
IN THE SECOND QUARTER OF 1921
OF FARM LABOR IN DIFFERENT SECTIONS OF THE
UNITED STATES
INCLUDING VALUE OF BOARD, LODGING, ETC WHEN FURNISHED.

FEMALE EMPLOYEES



MALE EMPLOYEES



FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER HOUR OF ALL MALE AGRICULTURAL WORKERS HIRED

By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

WAGES IN CENTS PER HOUR	NUMBER OF MALE EMPLOYEES HIRED BY THE MONTH								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
0 up to 4	2	2	6	1	1	10	2	7	5
4 " " 8	87	96	92	129	148	184	164	145	206
8 " " 12	319	420	382	330	389	518	566	577	591
12 " " 16	730	833	912	695	837	998	1,021	775	787
16 " " 20	598	833	763	673	613	894	872	753	680
20 " " 24	715	738	785	730	539	809	820	694	521
24 " " 28 ^a	452	550	620	418	368	558	725	439	334
26 " " 30	480	598	710	574	368	529	675	477	345
30 " " 34	294	480	485	330	325	408	494	367	289
34 " " 38	294	475	483	391	199	272	315	211	191
38 " " 42	243	198	234	262	184	166	165	167	86
42 " " 46	97	182	227	178	100	68	75	84	47
46 " " 50	101	131	201	82	51	33	93	50	51
50 " " 54	40	30	57	45	26	20	42	15	12
54 " " 62	40	40	63	57	37	35	26	11	11
62 " " 70	7	5	68	42	8	7	12	14	7
70 " " 78	8	11	38	10	5	1	7	5	4
78 " " 86	1	2	0	0	0	0	0	0	0
86 " " 94	2	0	0	2	1	0	0	1	2
All Rates ^a ...	4,298	5,346	5,781	4,711	4,048	5,270	5,709	4,567	4,016
	NUMBER OF MALE EMPLOYEES HIRED BY THE DAY								
0 up to 4	0	0	0	0	0	1	0	1	0
4 " " 8	103	53	26	27	57	76	63	50	114
8 " " 12	295	332	366	306	390	531	505	517	589
12 " " 16	353	497	463	460	415	662	765	625	611
16 " " 20	385	317	323	261	355	412	366	334	377
20 " " 24	437	521	589	410	381	626	558	470	321
24 " " 28 ^a	327	464	561	373	194	325	692	384	239
26 " " 30	129	169	216	595	91	176	274	239	180
30 " " 34	329	585	761	588	377	705	1,054	545	291
34 " " 38	125	177	372	178	81	142	386	196	76
38 " " 42	170	418	690	438	191	293	593	382	117
42 " " 46	218	211	497	267	121	159	253	156	34
46 " " 50	44	55	118	66	7	27	64	3	3
50 " " 54	62	149	465	286	61	65	410	77	42
54 " " 62	27	97	396	161	17	33	227	41	4
62 " " 70	20	59	175	73	15	22	37	19	11
70 " " 78	13	36	162	39	10	16	55	12	6
78 " " 86	6	5	131	13	5	11	55	1	1
86 " " 94	2	12	45	8	0	0	5	31	0
94 " " 102	0	0	20	2	0	0	5	0	1
All Rates ^a ...	3,022	4,113	6,285	4,527	2,742	4,231	6,298	4,040	2,990

^a Because of the overlapping of two classes, the aggregates do not equal the totals of the items as entered.

TABLE LXXV

**FREQUENCY DISTRIBUTION ACCORDING TO WAGES PER HOUR OF ALL
FEMALE AGRICULTURAL WORKERS HIRED**

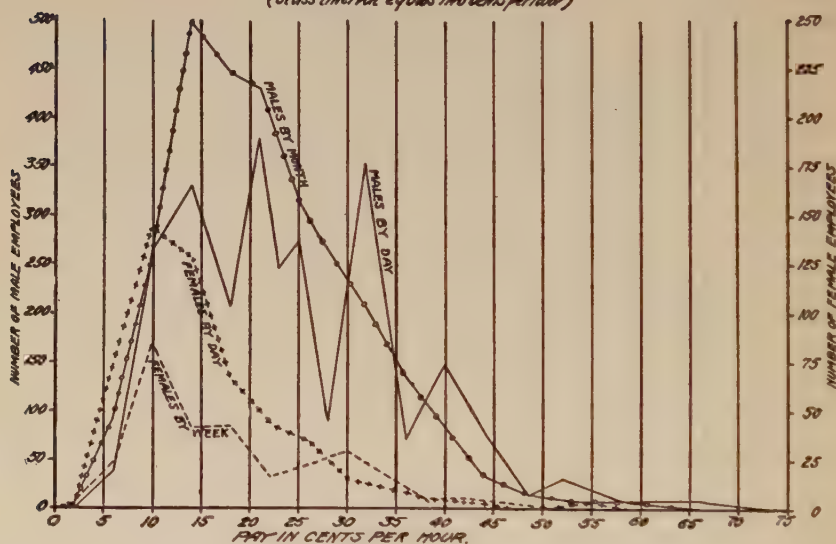
By CROP REPORTERS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

(Informants Were Asked to Include the Value of Board, Lodging, Etc., Furnished)

WAGES IN CENTS PER HOUR	NUMBER OF FEMALES EMPLOYEES HIRED BY THE WEEK								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
0 up to 4	1	5	4	5	3	6	6	3	3
4 " " 8	28	42	39	31	31	47	46	39	54
8 " " 12	137	129	136	120	187	170	174	157	152
12 " " 16	71	81	90	69	71	83	112	73	89
16 " " 20	85	108	120	88	64	84	87	70	67
20 " " 24	76	65	74	73	37	33	53	53	55
24 " " 28	33	38	41	35	21	44	61	37	29
28 " " 32	44	52	53	55	48	58	56	39	35
32 " " 36	13	42	32	26	18	33	27	26	18
36 " " 40	15	18	21	15	17	10	17	7	6
40 " " 44	12	14	21	18	10	10	19	17	8
44 " " 48	7	6	9	7	6	7	11	6	6
48 " " 54	10	3	3	1	0	1	2	0	0
54 " " 62	1	1	2	0	1	1	2	1	1
62 " " 70	1	2	3	2	1	2	2	3	0
70 " " 78	1	0	1	1	1	0	0	4	0
78 " " 86	0	0	0	0	0	0	0	1	0
86 " " 94	0	0	0	0	0	0	2	0	0
Total.....	535	606	649	546	516	589	677	536	523
	NUMBER OF FEMALE EMPLOYEES HIRED BY THE DAY								
	1920				1921				1922
	1st	2d	3d	4th	1st	2d	3d	4th	1st
0 up to 4	1	1	1	1	5	4	9	4	12
4 " " 8	176	112	117	113	112	147	135	122	124
8 " " 12	186	293	236	197	209	287	337	260	294
12 " " 16	163	211	262	181	124	257	236	184	118
16 " " 20	68	144	155	110	46	135	122	59	51
20 " " 24	53	162	187	167	62	84	113	93	51
24 " " 28	32	64	76	79	39	69	144	114	48
28 " " 32	23	58	114	70	40	29	62	31	11
32 " " 36	41	45	73	80	28	20	59	26	15
36 " " 40	20	17	89	28	5	9	11	25	5
40 " " 44	10	9	10	8	6	8	14	5	3
44 " " 50	1	2	17	1	3	1	6	2	4
50 " " 58	4	7	12	9	3	5	17	8	3
58 " " 66	2	1	1	6	1	1	1	3	2
66 " " 74	2	1	12	3	1	1	1	1	1
74 " " 82	0	0	10	2	0	0	1	0	1
Total.....	782	1,127	1,372	1,055	684	1,057	1,268	937	743

given to the idea that the value of the figures has been seriously impaired by an oversight of the kind just mentioned. The belief that the Crop Reporters did, in fact, make the allowances called for is strengthened by the close correspondence between the respective averages derived in this study for the various classes of employees and the similar figures obtained for corresponding dates by the Department of Agriculture. It is, of course, possible that, since both figures came from the same sources, both are subject to like errors, but this probability is lessened by the fact that the ques-

Chart 11
*FREQUENCY DISTRIBUTION
 OF DIFFERENT CLASSES OF EMPLOYEES ON FARMS
 ACCORDING TO THEIR RESPECTIVE RATES OF PAY PER HOUR
 SECOND QUARTER, 1921*
(Class interval equals two cents per hour)



tionnaires sent out by the Bureau of Crop Estimates are not similar to those used in the present investigation.

As the records stand, they show for males hired by the month a well-defined mode at 14 cents per hour. Males hired by the day have a much more irregular wage dispersion than do those hired by the month. No definite mode exists for these day workers, but the fact that, on the whole, such men receive slightly higher wages than do those employed by the month is clearly evident. The mode for both classes of female workers is quite definitely located at 10 cents per hour. All the curves are strongly skewed to the right except the one representing males hired by the day.

The evidence presented in this chapter shows that the price of farm labor, when viewed in a broad way, is relatively high along both the Pacific and the upper Atlantic Coasts, but is lower in the interior, and especially low in the South. While most of the workers on farms receive much smaller money wages than do employees in other fields of industry, it is, of course, true that food and lodging cost decidedly less in rural than in urban regions. Furthermore, the customary mode of dress calls for a much smaller expenditure for clothing. It follows that the ability to buy other classes of commodities or to save may not be so much less than that of the city employee, as the figures in this chapter might indicate.

It is believed that the data concerning the earnings of farm labor have been presented in sufficient detail to serve the purposes of most readers, but much of the material has been tabulated in more comprehensive form and investigators especially interested in this field are invited to consult the original tables which are kept on file at the offices of the National Bureau of Economic Research.

CHAPTER VI

SUMMARY

I. INTRODUCTION

1. Except in one or two minor details, the form of the questionnaire sent to employers proved highly satisfactory and may be helpful to organizations desirous of collecting complete employment records.
2. The fact that many employers reported on the basis of estimates rather than actual records does not appear to have introduced bias into the conclusions. The errors arising from the use of estimates are probably smaller than would be found in results based solely upon actual records, because the limited number of the latter obtainable would constitute a sample too small to be trustworthy.

II. THE NUMBER OF EMPLOYEES

1. Employment is capable of accurate measurement—the same can scarcely be said of unemployment, for the volume of the latter depends very largely upon the relationship between the price asked and the price offered for labor.
2. In 1920–22, the business cycle caused but few members of the families of farmers and other employers to shift from one industry to another.
3. During the 1921 depression the farmers hired about the same number of employees as they did in the previous year. Many industries laid off a large fraction of their working forces but none took on any considerable number of workers. It follows that there was a great reduction in the total volume of employment.
4. The total number of employees on all pay rolls in the United States diminished by about one-seventh between the third quarter of 1920 and the same period in 1921.
5. Although, in 1920, all enterprises having over 100 employees each, together gave employment to only about half the employees then at work in the United States, they were responsible for more than three-fourths of all lay-offs that occurred during the depression.

III. THE VOLUME OF EMPLOYMENT

1. Part-time work as a palliative for unemployment was resorted to by relatively few employers and, at the lowest point of the depression, employees on the pay rolls still averaged 95.3 per cent of full time.

2. The total number of employee hours worked diminished by about one-sixth between the boom of 1920 and the depression of 1921. Factories, mines, railways, and construction enterprises were responsible for the largest part of the total absolute reduction in employment.
3. When enterprises are classified into three groups on the basis of the number of persons employed per concern in the first quarter of 1920, the approximate total reduction in employee hours brought about by the depression was as follows:

Number of employees per enterprise	Reduction in total time worked (millions of hours)	Per cent of peak time lost
20 or fewer.....	214	3
21 to 100.....	405	14
Over 100.....	2,592	28

4. Statistics of the numbers on the pay rolls and of total wages and salaries paid are not sufficient to give an accurate picture of changes in the number of employee hours worked—in other words, they furnish only approximate gauges for measuring fluctuations in the volume of employment.

IV. THE HOURS WORKED PER WEEK

1. Small scale enterprises in general have longer full-time hours for their employees than do larger plants.
2. The longest average full-time hours per week recorded for the first quarter of 1922 were in domestic and personal service (56.7) and the shortest were in building and construction (42.9).
3. The average employee in the first quarter of 1922 worked 48.6 hours per week, or just a trifle more than an eight-hour day for a six-day week.
4. In the same period, employees engaged in domestic and personal service actually worked the longest hours per week (55.5), while those employed in textile and leather factories put in the shortest hours (43.0).
5. On the farms of the United States, persons hired by the week or month work longer hours than do those hired by the day. Hired men put in more hours per week than do hired girls. The working time per week is longer in the North than in the South. More hours per week are worked on farms than in most urban industries.

V. THE EARNINGS OF EMPLOYEES

1. Total payments for salaries and wages in 1921 amounted to about \$32,596,000,000, of which approximately one-third was paid out by enterprises employing fewer than 21 persons and one-half by concerns hiring over 100 workers each.
2. Salary and wage payments for the first quarter of 1922 were less by about 2,729 millions of dollars than were the total disbursements in the third quarter of 1920.
3. The average earnings in 1920 of persons who, in that year, worked in plants employing over 100 workers, was \$1,544. In 1921, because of unemployment, their earnings had fallen to \$1,112, a loss of \$432. Those persons employed in enterprises having fewer than 21 employees received only \$1,121 each in 1920, but in 1921 their earnings had declined only to \$1,077, a diminution of \$44. Workers employed in concerns of intermediate size earned on the average \$1,354 in 1920 and \$1,222 in 1921.
4. Female employees in general earn about three-fourths as much as males.
5. The business depression of 1921 caused a material decline in rates of pay per hour actually worked only in the fields of agriculture, manufacturing, mining, and steam railways.
6. The average rates of pay per hour in various industries cover a wide range—the highest figure in 1921 being 76 cents per hour in finance, and the lowest rate being 25 cents per hour in agriculture. The average for all industries at the close of 1921 was 51 cents per hour.
7. In the spring of 1921 the most common rates of pay per hour for agricultural workers were as follows:

Males hired by the month.....	14 cents
Males hired by the day.....	21 cents
Females hired by the week.....	10 cents
Females hired by the day.....	10 cents

8. Average earnings per hour of persons employed on farms at that period were somewhat higher, being as follows:

Males hired by the month.....	21 cents
Males hired by the day.....	25 cents
Females hired by the week.....	17 cents
Females hired by the day.....	15 cents

9. At the same date the average pay per hour for male employees on farms working by the month ranged from 33 cents per hour on the Pacific Coast to 15 cents per hour in the South, while the average pay of female employees hired by the week varied between 26 cents in New England and 12 cents in the East South Central States.

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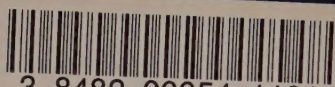
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